

---

## **University of California, Riverside, Citrus Research Center and Agricultural Experiment Station records**

Finding aid prepared by History Associates Incorporated

Special Collections & University Archives

The UCR Library

P.O. Box 5900

University of California

Riverside, California 92517-5900

Phone: 951-827-3233

Fax: 951-827-4673

Email: [specialcollections@ucr.edu](mailto:specialcollections@ucr.edu)

URL: <http://library.ucr.edu/libraries/special-collections-university-archives>

© 2013

The Regents of the University of California. All rights reserved.

---

## **Descriptive Summary**

**Title:** University of California, Riverside, Citrus Research Center and Agricultural Experiment Station records

**Date (inclusive):** circa 1808-2007, undated.

**Date (bulk):** 1910-1955

**Collection Number:** UA 042

**Creator:** University of California, Riverside. Citrus Research Center and Agricultural Experiment Station

**Extent:** 63 linear feet(54 document boxes, 3 flat storage boxes, 8 glass plate negative boxes, 3 index card boxes, 1 lantern slide box, 2 map-case folders, unboxed material)

**Repository:** Rivera Library. Special Collections Department.

Riverside, CA 92517-5900

**Abstract:** The Citrus Research Center and Agricultural Experiment Station (CRC-AES) records collection contains administrative records, correspondence, faculty papers, publications, scrapbooks, clippings, photographs, reports, project files, and other material relating to CRC-AES. Formerly known as the Citrus Experiment Station (CES), the bulk of materials precede the establishment of UC Riverside's College of Letters and Sciences in 1954. The majority of topics document the history, events, faculty, staff, facilities, research, and experiments of CES. Materials related to CES research and experiments pertain to the physiology and morphology of citrus, fig, date palm, avocado, and other subtropical crops, soil management, smog studies, pest control, and diseases. A majority of citrus related publications and faculty papers were originally part of the former University of California Graduate School of Tropical Agriculture and Citrus Experiment Station Library. Project files pertain to research and experiments conducted by CES staff, faculty, and associated members. In addition, other subjects include the history of the citrus and avocado industry in Southern California, the introduction of the first Washington navel orange tree, and global production and marketing of citrus and subtropical agriculture.

**Languages:** The collection is in English.

### **Access**

This collection is open for research.

For preservation and safety concerns, the use of nitrate negatives in Sub-series 8.5 has been restricted. Please contact Special Collections & Archives for additional information regarding this material.

### **Publication Rights**

*Copyright Unknown:* Some materials in these collections may be protected by the U.S. Copyright Law (Title 17, U.S.C.). In addition, the reproduction, and/or commercial use, of some materials may be restricted by gift or purchase agreements, donor restrictions, privacy and publicity rights, licensing agreement(s), and/or trademark rights. Distribution or reproduction of materials protected by copyright beyond that allowed by fair use requires the written permission of the copyright owners. To the extent other restrictions apply, permission for distribution or reproduction from the applicable rights holder is also required. Responsibility for obtaining permissions, and for any use rests exclusively with the user.

### **Preferred Citation**

[identification of item], [date if possible]. University of California, Riverside, Citrus Research Center and Agricultural Experiment Station records (UA 042). Special Collections & University Archives, University of California, Riverside.

### **Processing History**

Processed by History Associates Incorporated, 2013.

Processing of the University of California, Riverside, Citrus Research Center and Agricultural Experiment Station records was generously funded by the Andrew W. Mellon Foundation, and administered by the Council on Library and Information Resources (CLIR). The University of California, Riverside was awarded a Cataloging Hidden Special Collections and Archives grant from 2010-2013, "Uncovering California's Environmental Collections," in collaboration with eight additional special collections and archival repositories throughout the state and the California Digital Library (CDL). Grant objectives included processing of over 33 hidden collections related to the state's environment and environmental history. The collections document an array of important sub-topics such as irrigation, mining, forestry, agriculture, industry, land use, activism, and research. Together they form a multifaceted picture of the natural world and the way it was probed, altered, exploited and protected in California over the twentieth century. Finding aids are made available through the Online Archive of California (OAC).

### **Administrative History**

The Citrus Research Center and Agricultural Experiment Station (CRC-AES) was established by the Regents of the University of California on February 14, 1907. In the late 1800s, the citrus industry was quickly expanding in Southern California causing the need for a research facility closer than the State Agricultural Experiment Station located in Berkeley. In 1899,

---

John Henry Reed, a citrus grower and member of the Riverside Horticultural Club, developed a proposal for the construction of an experiment station in Riverside for the purpose of improving the growth and production of citrus crops. Over the next five years, Reed and his fellow club members created petitions, acquired endorsements, and lobbied the California legislature to have a station developed. In May 1906, a group of commissioners created to represent the UC Regents approved a plan that would allow for the establishment of an organization with two separate branches: a laboratory in Whittier and an experiment station in Riverside.

Initially known as the Rubidoux Laboratory, the Citrus Experiment Station (CES) was constructed on approximately 23 acres of land on the eastern side of Mount Rubidoux in Riverside. Leased to the University of California from the Huntington Park Association, the site was comprised of a few small buildings, two cottages, and a stable. To celebrate the opening of the Citrus Experiment Station on January 27, 1907, Riverside staged the largest Farmers' Institute ever held in California at that time. During its earliest days at the Rubidoux laboratory, CES had only two technically trained staff and few staff assistants, with research limited to topics in soil management, irrigation, and fertilization for the improvement of citrus quality and production.

In 1912, the retirement of Dean Wickson of the College of Agriculture and director of the State Agriculture Experiment Station in Berkeley prompted a decision by the UC president and regents to consider a reorganization of the university's agricultural research and activities. In 1913, Herbert John Webber was appointed dean of the newly formed Graduate School of Tropical Agriculture in Southern California as well as the new director of CES. In January of that year, a freeze in Southern California caused a record loss in citrus crops, prompting the California Fruit Growers Exchange to lobby for an increase in citrus funding. The result allowed for a new and larger citrus experiment station to be built. In 1914, Webber worked closely with the Riverside Chamber of Commerce and city officials to convince the UC Regents to keep the station in Riverside instead of moving it to the San Fernando Valley. On December 22, 1914, the regents voted 14 to 4 in favor of keeping the station in Riverside. The dedication ceremony for the new Graduate School of Tropical Agriculture and citrus station took place on March 27, 1918 at the new 475 acre site located at the foothills of the Box Springs Mountains, five miles east of the original Rubidoux site.

During his tenure, Webber recruited eleven scientists and organized six divisions within CES: agricultural chemistry, plant physiology, plant pathology, entomology, plant breeding, and orchard management. In June 1917, Webber directed the installation of experimental plots on the new site for the purpose of studying orange cultivation and fertilization. This was the start of the citrus variety collection (CVC), one of the greatest citrus tree varieties collections worldwide. Some of the most important achievements within CES during Webber's directorship were in biological control, plant diseases, soils and plant nutrition, and studies regarding mottle-leaf disease, the mealybug, and subtropical agriculture with a focus on avocados.

After Webber's retirement in 1929, Leon D. Batchelor became the second director of CES. During his term, he focused on fertilizer experiments and research on tristeza disease. Through the development of a new rootstock that was tristeza resistant, the threat of extinction of California citrus trees was prevented. In 1932, the University of California at Los Angeles (UCLA) established a College of Agriculture and the Division of Subtropical Horticulture was transferred from Berkeley to Los Angeles. Over the course of the next few years, divisions were transferred from Berkeley, Davis, and Riverside to Los Angeles. This resulted in the Graduate School of Tropical Agriculture being discontinued in Riverside in 1939. In 1946, Webber and Batchelor co-edited *The Citrus Industry*, a two volume work regarding citrus growth, production, and distribution.

In 1951, Batchelor retired from his post as director and Homer D. Chapman took over until the end of that year. In January 1952, entomologist and CES staff member Alfred M. Boyce became the new CES director. During Boyce's term, CES expanded its research to include the nation's first department of Nematology, and dedicated time to research in air pollution and insect resistance to pesticides. In 1954, the Riverside campus established a College of Letters and Science and became a general University of California campus in 1959. In 1960, a College of Agriculture was created at Riverside and Boyce was appointed the first dean. Through this partnership, CES researchers and scientists acquired joint research and teaching appointments. In 1961, CES officially changed its name to the Citrus Research Center and Agricultural Experiment Station (CRC-AES) to reflect new growth and developmental changes within the research conducted at the station. Since the 1960s, the CRC-AES has continued research in areas such as biological control and pest management, and has added new areas in molecular biology, genetics, and agriculture in arid and semiarid regions. In 2007, the CRC-AES celebrated its 100th anniversary. Today, the CRC-AES is administered by Agricultural Operations, a department within the College of Natural and Agricultural Sciences at UC Riverside. Through Agricultural Operations, CRC-AES continues to grow and manage crops for the future research of citrus and subtropical agriculture.

1899: John Henry Reed developed a proposal for the construction of a citrus experiment station in Southern California.

1906: UC Regents approved a plan to institute an experiment station in Southern California in May.

1907: The Citrus Experiment Station (CES) site was officially established on Mt. Rubidoux on February 14.

- 
- 1913: Herbert J. Webber was named the first director of the CES.  
A record breaking frost devastated citrus crops across Southern California in January.
- 1914: UC Regents voted 14 to 4 in favor of keeping the station site in Riverside.
- 1917: Herbert J. Webber established the citrus variety collection (CVC) through the installation of experimental plots on the new station site.
- 1918: The Citrus Experiment Station and the new Graduate School of Tropical Agriculture were dedicated on March 27.
- 1924: Summer sessions in Subtropical Horticulture for undergraduate students were instituted in Riverside.
- 1929: Herbert J. Webber retired and Leon D. Batchelor took Webber's place to become the second CES director.
- 1931: The north wing of the CES building was constructed.
- 1933: Summer sessions in undergraduate instruction in Subtropical Horticulture were suspended.
- 1939: The Graduate School of Tropical Horticulture was discontinued.
- 1940: Herbert J. Webber and Leon D. Batchelor co-edited and released *The Citrus Industry*.
- 1951: Leon D. Batchelor retired and Homer D. Chapman took Batchelor's place as director for the remainder of the year.
- 1952: Alfred M. Boyce took over as CES director.
- 1954: A College of Letters and Science was established on the Riverside campus.
- 1957: CES celebrated its 50th anniversary.
- 1959: UC Riverside became a general campus.
- 1960: A College of Agriculture was established at UC Riverside and Alfred M. Boyce was appointed the new dean.
- 1961: CES officially changed its name to the Citrus Research Center and Agricultural Experiment Station (CRC-AES).
- 1968: The first International Citrus Symposium was held at UC Riverside in March.
- 1982: CRC-AES celebrated its 75th anniversary.
- 2007: CRC-AES celebrated its 100th anniversary.

#### **Collection Scope and Content Summary**

The Citrus Research Center and Agricultural Experiment Station (CRC-AES) records collection contains administrative records, correspondence, faculty papers, publications, scrapbooks, clippings, photographs, reports, project files, and other material relating to CRC-AES. Formerly known as the Citrus Experiment Station (CES), the bulk of materials precede the establishment of UC Riverside's College of Letters and Sciences in 1954. The majority of topics document the history, events, faculty, staff, facilities, research, and experiments of CES. Materials related to CES research and experiments pertain to the physiology and morphology of citrus, fig, date palm, avocado, and other subtropical crops, soil management, smog studies, pest control, and diseases. A majority of citrus related publications and faculty papers were originally part of the former University of California Graduate School of Tropical Agriculture and Citrus Experiment Station Library. Project files pertain to research and experiments conducted by CES staff, faculty, and associated members. In addition, other subjects include the history of the citrus and avocado industry in Southern California, the introduction of the first Washington navel orange tree, and global production and marketing of citrus and subtropical agriculture.

#### **Collection Arrangement**

This collection is arranged into ten series and twelve sub-series. The series and sub-series arrangement is as follows:

- Series 1. Administrative records. 1868-1978, undated.
  - Sub-series 1.1. Budgets. 1868-1953, undated.
  - Sub-series 1.2. Curricula. 1916-1978, undated.
  - Sub-series 1.3. Facilities. 1912-1965, undated.
  - Sub-series 1.4. Libraries. 1912-1966, undated.
  - Sub-series 1.5. Personnel. 1914-1974, undated.
  - Sub-series 1.6. Publications. 1908-1964, undated.
  - Sub-series 1.7. Research. 1915-1975, undated.
- Series 2. Faculty papers. 1873-1971, undated.
- Series 3. Citrus industry records and publications. 1890-1991, undated.
- Series 4. History of the Citrus Experiment Station. 1899-1978, undated.
- Series 5. Scrapbooks. 1908-1957.
- Series 6. Press clippings. 1899-1985, undated.
- Series 7. Project files. 1907-1967.
- Series 8. Photographic material. 1898-1986, undated.

- 
- Sub-series 8.1. 35mm slides. 1937-1960s, undated.
  - Sub-series 8.2. Black-and-white photographs. 1898-1986, undated.
  - Sub-series 8.3. Lantern slides. 1904-1938, undated.
  - Sub-series 8.4. Glass plate negatives. 1904-1929, undated.
  - Sub-series 8.5. Nitrate negatives. 1808-1950, undated.
  - Series 9. Citrus Experiment Station anniversary celebrations. 1933-2007.
  - Series 10. Maps, site drawings, and other oversize materials. 1888-1952, undated.

### **Indexing Terms**

The following terms have been used to index the description of this collection in the library's online public access catalog.

### **Subjects**

University of California, Riverside. Citrus Research Center and Agricultural Experiment Station  
Webber, Herbert John, 1865-1946  
Thomas, Edward Ellis, 1883-1936  
Quayle, H. J. (Henry Josef), 1876-  
Parker, E. R. (Edwin Robert), 1896-1952  
Chapman, Homer Dwight, 1898-2005  
Batchelor, L. D. (Leon Dexter), 1884-  
Boyce, A. M.  
Agriculture  
Avocado  
Citrus  
Citrus -- Diseases and pests  
Citrus fruit industry  
Citrus fruits -- Research  
Entomology  
Horticulture  
Riverside (Calif.)

### **Genres and Forms of Materials**

Administrative records  
Articles  
Clippings (information artifacts)  
Correspondence  
Documents  
Lantern slides  
Maps  
Negatives (photographs)  
Notes  
Photographs  
Publications  
Reports  
Slides (photographs)  
Typescripts

---

Series 1. **Administrative records. 1868-1978, undated.**

**Series Scope and Content Summary**

This series contains correspondence, annual reports, programs, topographical surveys, and other material pertaining to administrative matters of the Citrus Experiment Station (CES). Materials primarily relate to facilities, budgets, staff, the library, and early developments of the CES prior to the establishment of the UC Riverside College of Letters and Science in 1954. Records documenting research in the Subtropical Horticulture Division of the College of Agriculture, the Southern California Pathological Laboratory, and the Graduate School of Tropical Agriculture are also included.

**Series Arrangement**

This series is arranged into seven sub-series:

Sub-series 1.1. Budgets. 1868-1953, undated.

Sub-series 1.2. Curricula. 1916-1978, undated.

Sub-series 1.3. Facilities. 1912-1965, undated.

Sub-series 1.4. Libraries. 1912-1966, undated.

Sub-series 1.5. Personnel. 1914-1974, undated.

Sub-series 1.6. Publications. 1908-1964, undated.

Sub-series 1.7. Research. 1915-1975, undated.

---

**Budgets. Sub-series 1.1. 1868-1953, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains correspondence, reports, and other material pertaining to the budget of the Citrus Experiment Station (CES). Topics include approved and recommended annual budgets, salaries, payroll, supplies, maintenance and construction of CES buildings, and prospective research projects. Select faculty papers and correspondence regarding budgets and financial matters are also included.

For all other records concerning faculty papers, please consult Series 2, Faculty papers.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 3, Folder 5	<b>Correspondence of Thomas F. Hunt regarding the budget, salaries, and other administrative matters of CES. 1913-1919.</b>
Box 3, Folder 8	<b>Correspondence regarding the budget, faculty, research and future developments of the school of subtropical horticulture. Contains salary information. 1915-1928.</b>
Box 3, Folder 9	<b>Correspondence between W.D. Drew and Robert W. Hodgson regarding expenditures and administrative matters of CES and the school of subtropical horticulture. 1928-1929.</b>
Box 3, Folder 10	<b>Correspondence between W.D. Drew and R.M. Underhill regarding expenditures, injuries that occurred at CES, and other financial matters. July 1928-December 1928.</b>
Box 3, Folder 12	<b>Correspondence of W.D. Drew regarding expenditures, salaries, and other administrative matters of CES. 1927-1928.</b>
Box 7, Folder 5	<b>Estimate of expenditures for prospective projects within the Agricultural Experiment Station Division of Plant Pathology. 1912-1913.</b>
Box 9, Folder 1	<b>Estimate of expenditures regarding supplies, maintenance, and wages for the Southern California Pathological Laboratory and CES. 1912-1915.</b>
Box 9, Folder 2	<b>Correspondence regarding the approval of budgets and a statement of salaries for CES. 1914-1916.</b>
Box 9, Folder 4	<b>Documents regarding supply costs for select CES projects. 1919-1926.</b>
Box 9, Folder 5	<b>Official budgets and financial statements for the CES and subtropical horticulture divisions. Includes correspondence and budget recommendations. 1916-1926.</b>
Box 9, Folder 6	<b>Recommended CES and subtropical horticulture budgets for the bienniums 1919-1921, 1923-1925, and 1925-1927. Includes correspondence. 1916-1927, undated.</b>

---

---

Box 9, Folder 7	<b>Recommended budgets for the divisions of subtropical horticulture and CES. Includes a list of functions and active projects. April 20, 1926.</b>
Box 9, Folder 8	<b>Official CES budgets. Includes correspondence. 1926-1929.</b>
Box 9, Folder 9	<b>Approved budgets for all CES departments for the 1929-1930, 1930-1931, 1931-1932 and 1932-1933 fiscal years. Includes biographical data and salary information. 1929-1933.</b>
Box 9, Folder 10	<b>Recommended budget for the College of Agriculture in Southern California branch for the 1934-1935 fiscal year. Includes biographical data and salary information. 1933-1935.</b>
Box 9, Folder 11	<b>Approved budgets for all CES departments for the 1933-1934, 1934-1935, and 1935-1936 fiscal years. Includes salary information. 1933-1936.</b>
Box 9, Folder 12	<b>Recommended budgets for the bienniums 1935-1937 and 1937-1939 for the CES and subtropical horticulture divisions of the College of Agriculture Southern California branch. Includes biographical data, salary information, and job descriptions. 1934-1939.</b>
Box 10, Folder 1	<b>Approved budgets for all CES departments for the 1936-1937, 1937-1938, and 1938-1939 fiscal years. Includes salary information. 1936-1939.</b>
Box 10, Folder 2	<b>Recommended budgets for the CES and UCLA divisions of the College of Agriculture Southern California branch for the 1937-1938 and 1938-1939 fiscal years. Includes biographical data and salary information. 1937-1939.</b>
Box 10, Folder 3	<b>Recommended CES budget for the 1939-1940 fiscal year. Includes biographical data and salary information. 1938-1940.</b>
Box 10, Folder 4	<b>Recommended CES budget for the biennium 1939-1941. Includes salary information. 1938-1941.</b>
Box 10, Folder 5	<b>Approved budgets for all CES departments for the 1939-1940 and 1940-1941 fiscal years. Includes salary information. 1939-1941.</b>
Box 10, Folder 6	<b>Recommended CES budget for the 1940-1941 fiscal year. Includes salary information. 1939-1941.</b>
Box 10, Folder 7	<b>Recommended CES budget for the biennium 1941-1943. Includes salary information. 1941-1943.</b>
Box 10, Folder 8	<b>Recommended CES budget for the 1942-1943 fiscal year. Includes biographical data and salary information. 1941-1943.</b>
Box 11, Folder 1	<b>Approved budgets for all CES departments for the 1941-1942 and 1942-1943 fiscal years. Includes salary information. 1941-1943.</b>
Box 11, Folder 2	<b>Recommended CES budget for the 1943-1944 fiscal year. Includes salary information. 1943-1944.</b>
Box 11, Folder 3	<b>Approved budgets for all CES departments for the 1943-1944 and 1944-1945 fiscal years. Includes salary information. 1943-1945.</b>
Box 11, Folder 4	<b>Recommendations for a supplementary post-war budget for CES. July 1944.</b>
Box 11, Folder 5	<b>Recommended CES budget for the 1944-1945 fiscal year. Includes salary information. 1943-1945.</b>
Box 11, Folder 6	<b>Recommended CES budget for the biennium 1945-1947. Includes salary information. 1944-1947.</b>
Box 11, Folder 7	<b>Recommended CES budget for the biennium 1945-1947 oriental fruit moth investigations. Includes salary information. 1944-1947.</b>
Box 11, Folder 8	<b>Recommended CES budget for the 1946-1947 fiscal year. Includes salary information. 1946-1947.</b>
Box 12, Folder 1	<b>Approved budgets for all CES departments for the 1945-1946 and 1946-1947 fiscal years. Includes salary information. 1945-1947.</b>
Box 12, Folder 2	<b>Recommended CES budget for the 1947-1948 fiscal year. Includes biographical data and salary information. 1947-1948.</b>
Box 12, Folder 3	<b>Recommended CES budget for the biennium 1947-1949. Includes salary information. 1946-1949.</b>
Box 12, Folder 4	<b>Approved budget for all CES departments for the 1947-1948 fiscal year. Includes salary information. 1947-1948.</b>
Box 12, Folder 5	<b>Recommended CES budget for the 1948-1949 fiscal year. Includes state budget requests. 1948-1949.</b>

---

---

Box 13, Folder 1	<b>Recommended CES budget for the 1949-1950 fiscal year. Includes state budget requests, biographical data, and salary information. 1948-1950.</b>
Box 13, Folder 2	<b>Approved budgets for all CES departments for the 1948-1949 and 1949-1950 fiscal years. Includes salary information. 1948-1950.</b>
Box 13, Folder 3	<b>Recommended CES budget for the 1950-1951 fiscal year. Includes state budget requests and salary information. 1949-1951.</b>
Box 13, Folder 4	<b>Approved budget for all departments within CES for the 1950-1951 fiscal year. Includes salary information. 1950-1951.</b>
Box 13, Folder 5	<b>Recommended CES budget I for the 1951-1952 fiscal year. Includes state budget requests and salary information. 1950-1952.</b>
Box 13, Folder 6	<b>Recommended CES budget II for the 1951-1952 fiscal year. Includes salary information. 1950-1952.</b>
Box 14, Folder 1	<b>Approved budget for all CES departments for the 1951-1952 fiscal year. Includes salary information. 1951-1952.</b>
Box 14, Folder 2	<b>State budget requests for the CES research division for the 1952-1953 fiscal year. Includes salary information. 1951-1953.</b>
Box 14, Folder 3	<b>Recommended CES budget for the 1952-1953 fiscal year. Includes salary information. 1951-1953.</b>
Box 14, Folder 5	<b>Correspondence and notices to the heads of divisions regarding budgets, annual reports, and research projects of CES. Includes meeting minutes. 1920-1921.</b>
Box 16, Folder 2	<b>Checkbook for CES documenting payroll, equipment, and other various expenses (photocopy). Contains one check. August 11, 1868-June 1, 1870.</b>
Box 16, Folder 3	<b>Invoices and certificates of deposit for the CES account. 1944.</b>
Box 16, Folder 5	<b>Requisitions for CES purchases with balances outstanding for the 1913-1914 fiscal year (mimeograph copies). 1913-1914.</b>
Box 17, Folder 1-3	<b>Requisitions and correspondence for CES equipment purchases. 1935-1941.</b>
Box 17, Folder 4	<b>Certificates of deposit and invoices for the CES account. 1943-1944.</b>
Box 42, Folder 14	<b>Report regarding the budget of the UC Riverside Agricultural Experiment Station. Includes the director's report prepared for the Five-Year Multicampus Research Unit Review Committee. 2001-2002.</b>

---

**Curricula. Sub-series 1.2. 1916-1978, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains programs, clippings, schedules, and reports pertaining to extension school and summer school courses held at or in conjunction with the Citrus Experiment Station (CES). Topics include subtropical horticulture, plant biochemistry, the citrus industry, and other subjects.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

---

Box 5, Folder 11	<b>Program for a five-day poultry course held at the Polytechnic High School in Riverside, California (two copies). 1916.</b>
Box 5, Folder 12	<b>Program for a gas tractor short course at CES. 1919.</b>
Box 5, Folder 13	<b>Program for extension school for walnut growers at CES. February 20-21, 1929.</b>
Box 5, Folder 14	<b>Pamphlets regarding summer courses in subtropical horticulture conducted at CES. 1924-1932.</b>
Box 5, Folder 15	<b>CES summer course descriptions and syllabi. 1924-1928.</b>
Box 5, Folder 16	<b>Clippings, poster, and schedules for CES summer sessions. 1923-1932, undated.</b>
Box 5, Folder 17	<b>Tentative summer course schedule for <i>Applied Production Technology for Citrus</i>. 1978.</b>
Box 18, Folder 4	<b>Proposal by CES staff members for a graduate program in plant biochemistry. circa 1960.</b>
Box 19, Folder 3	<b>Report entitled <i>The Citrus Industry in California</i> as prepared by the Division of Curriculum, Los Angeles County Schools. 1936.</b>
Box 29, Folder 6	<b>Program for a one-day soil management extension school for farmers and fruit growers of Coachella Valley. December 5, 1935.</b>

---



**Facilities. Sub-series 1.3. 1912-1965, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains correspondence, reports, notes, and other material pertaining to the installation of equipment and the construction of Citrus Experiment Station (CES) buildings and facilities. The bulk of the correspondence and notes relate to topographical surveys of prospective CES laboratory sites in Southern California. Select faculty papers and correspondence regarding CES facilities issues are also included.

For all other records concerning faculty papers, please consult Series 2, Faculty papers.

For additional blueprints and topographical surveys, please consult Series 10, Maps, site drawings, and other oversize material.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 1, Folder 6

**Application for electric power service for CES. 1916.**

Box 1, Folder 8

**Notes from a consultation with Dean Hunt at UC Berkeley regarding a building program. August 1-2, 1917.**

Box 2, Folder 6

**Report and accompanying map by Herbert B. Foster regarding water rights and water resources for CES (four copies, one with correspondence). 1931, 1954-1955.**

Box 2, Folder 11

**Correspondence, deeds, and agreements regarding the purchase and development of the water supply system for CES; Chart regarding water usage. 1912-1932.**

Box 2, Folder 12

**Agreement between A.J. Stalder and Jane Gage, L.V.W Brown and S.C. Evans regarding the purchase of land located in Riverside, California for CES. 1916.**

Box 3, Folder 1-2

**Report to the Regents of the University of California on the Water Supply for the Citrus Experiment Station Riverside County, California June 20, 1933 by Paul Bailey (three copies). Includes a list of total water usage for the years 1933-1937, topographical maps, and graphs. 1933-1937.**

Box 3, Folder 3

**Report entitled Adequacy of Present Water Supply of Easterly Portion of Interior Basin of Santa Ana River by Harold Conkling and Donald M. Baker. August 1953.**

Box 3, Folder 7

**Correspondence regarding research, finances, and construction of CES. 1927-1940.**

Box 3, Folder 11

**Correspondence between W.D. Drew and Rhoda Ostrowski regarding a Fullerton property belonging to Mrs. Ostrowski. 1928-1929.**

---

Box 4, Folder 1	<b>Correspondence of W.D. Drew regarding equipment and construction at CES. Includes blueprints of proposed vault equipment. 1929.</b>
Box 4, Folder 13	<b>Correspondence and notes of H.J. Webber, J.T. Barrett, and Ralph Merritt regarding CES water supply and irrigation systems. 1915-1920.</b>
Box 5, Folder 18	<b>Notes and brochure regarding topographical surveys located at the Fairview Farms tract in Newport Beach, California. 1914, undated.</b>
Box 5, Folder 19	<b>Correspondence, maps, and notes regarding topographical surveys in Altadena and Pasadena, California for CES laboratories. 1913-1914, undated.</b>
Box 5, Folder 20	<b>Reports, notes, and correspondence regarding topographical surveys in Pasadena, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 1-2	<b>Correspondence, propositions, and notes regarding topographical surveys in Redlands, California for CES laboratories. 1913.</b>
Box 6, Folder 3	<b>Correspondence, maps, and a proposal regarding the purchase of land from the Fontana Company in Fontana, California for CES laboratories. 1913-1914, undated.</b>
Box 6, Folder 4-5	<b>Topographical surveys and brochures regarding the purchase of land in Pomona, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 6	<b>Report, map, and notes regarding topographical surveys in Corona, California for CES laboratories. circa 1914, undated.</b>
Box 6, Folder 7	<b>Report and notes regarding the purchase of land in San Fernando and Monrovia, California for CES laboratories. undated.</b>
Box 6, Folder 8	<b>Correspondence and notes regarding topographical surveys in Ventura and Glendora, California for CES laboratories. 1913.</b>
Box 6, Folder 9	<b>Correspondence regarding topographical surveys in San Ysidro and Alta Loma, California for CES laboratories. 1913-1914.</b>
Box 6, Folder 10	<b>Notes and maps regarding topographical surveys in Wineville, Terra Bella, and Escondido, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 11	<b>Correspondence and notes regarding the purchase of land in Huntington Beach and Buena Park, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 12	<b>Correspondence and notes regarding topographical surveys in Orange, Santa Ana, and Anaheim, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 13-14	<b>Correspondence, report, and notes regarding topographical surveys in Riverside, California for CES laboratories. 1913, undated.</b>

---

Box 6, Folder 15	<b>Correspondence and notes regarding topographical surveys in Whittier, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 16	<b>Correspondence and notes regarding topographical surveys in Covina, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 17	<b>Notes regarding topographical surveys in San Dimas, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 18	<b>Notes regarding topographical surveys in Claremont, California for CES laboratories. undated.</b>
Box 6, Folder 19	<b>Correspondence and notes regarding topographical surveys in San Bernardino, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 20	<b>Correspondence and notes regarding topographical surveys in Yorba Linda, California for CES laboratories. 1913.</b>
Box 6, Folder 21	<b>Correspondence and notes regarding topographical surveys in Cucamonga and Ontario, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 22	<b>Correspondence, map, and notes regarding topographical surveys in Upland, California for CES laboratories. 1913, undated.</b>
Box 6, Folder 23	<b>Correspondence and documents recommending that the division of citriculture and subtropical horticulture be moved from Berkeley to Southern California. Includes investigations of prospective site locations. 1913-1932.</b>
Box 6, Folder 24	<b>Reports and surveys for proposed experiment station sites in Fullerton and Beverly Hills, California. circa 1914-1925.</b>
Box 7, Folder 4	<b>Correspondence of E.E. Thomas regarding equipment for the Southern California Pathological Laboratory. 1911-1912.</b>
Box 8, Folder 5	<b>Report entitled <i>Agreement, Bonds, General Conditions and General Specifications for the Chemical Building for the Citrus Experiment Station</i> by G. Stanley Wilson (E.E. Thomas' copy). May 24, 1930.</b>
Box 8, Folder 6	<b>Report entitled <i>Agreement, Bonds, General Conditions, General Specifications, and Itemized List of Laboratory Equipment and Furniture for Chemical Building, Citrus Experiment Station</i> . Prepared by the Department of Grounds and Building at the University of California, Berkeley, California. Includes blueprints (E.E. Thomas' copy). June 1930.</b>
Box 8, Folder 7	<b>Blueprints of standard furniture and equipment designs for the CES chemical building. 1929-1930.</b>

---

Box 8, Folder 8	<b>Report entitled <i>Agreement, Bonds, General Conditions, and General Specifications for the Installation of Window Shades, Venetian Blinds, and Awnings in the Chemical Building, Citrus Experiment Station</i> . Prepared by the Department of Grounds and Building at the University of California, Berkeley, California (E.E. Thomas' copy). January 20, 1931.</b>
Box 8, Folder 9	<b>Report entitled <i>General Conditions, General Specifications, Agreement Forms, and Bond Forms for the Installation of the Plumbing and Heating Equipment and the Electric Equipment in the Chemical Building and Insectary and for the Services of the Citrus Experiment Station</i> . Prepared by Hunter and Hudson, consulting engineers (E.E. Thomas' copy). undated.</b>
Box 15, Folder 2-3	<b>Papers of the CES building committee. Includes correspondence, memorandums, meeting agendas, notes, and reports. 1943-1948.</b>
Box 18, Folder 2	<b>Visitors' book of the CES. 1928-1965.</b>
Box 19, Folder 9	<b>Plan for a conservation farm at CES and the San Jacinto Basin soil conservation district. 1954.</b>

---

**Libraries. Sub-series 1.4. 1912-1966, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains correspondence, reports, bibliographies, articles, and other material regarding the Citrus Experiment Station (CES) library's holdings, policies, and recent acquisitions. Memorandums addressed to librarian Margaret Buvens pertain to financial and daily operation of the CES. Bibliographies regarding holdings in the Southern California Pathological Laboratory and the San Bernardino Free Public Library are also included.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 4, Folder 2	<b>Memorandums addressed to librarian Margaret Buvens regarding various financial and daily operations of CES. Includes a report regarding the research of soils. 1932-1953.</b>
Box 4, Folder 3	<b>Report regarding the separation of materials between the bio-agricultural and science libraries at UC Riverside. Includes correspondence. 1965-1966.</b>
Box 4, Folder 4	<b>Correspondence regarding the classification systems used by the CES library. 1920-1957.</b>
Box 4, Folder 5	<b>Correspondence, reports, and articles regarding the history of the CES library. 1930-1957.</b>
Box 4, Folder 6	<b>Correspondence regarding the Works Progress Administration Library Assistance Project. 1935-1936.</b>
Box 4, Folder 7	<b>Correspondence regarding journal subscriptions and the acquisition of rare books for the CES library. 1934-1948.</b>
Box 4, Folder 8	<b>Annual reports of the CES library. 1917, 1923-1969.</b>
Box 4, Folder 9	<b>Reports and correspondence regarding gifts and donations to the CES library. 1955-1957, undated.</b>
Box 4, Folder 10	<b>Memorandums and reports regarding the CES library building program. 1952-1960.</b>
Box 4, Folder 11	<b>Minutes, summaries, and correspondence of the CES library committee. 1954-1962.</b>

---

---

Box 4, Folder 12	<b>Report on the administration and operation of the general and agricultural libraries at UC Riverside. 1964-1965.</b>
Box 5, Folder 1	<b>Notebook regarding the acquisition of entomological materials for the CES library. Includes correspondence regarding the Zimmerman collection. 1962-1963.</b>
Box 5, Folder 2	<b>Procedure for the annual check of department libraries at UC Riverside (two copies). 1933.</b>
Box 5, Folder 3	<b>Policies and codes for the CES library. 1956-1958.</b>
Box 5, Folder 4	<b>Classification survey instructions (two copies) and revised nonacademic personnel pay plan for UC Riverside. Includes library class titles and compensation. 1941-1952.</b>
Box 5, Folder 5	<b>Shelf list of books in the Southern California Pathological Laboratory library. circa 1912.</b>
Box 5, Folder 6	<b>Bibliographies of citrus, walnut, date palm, and alkali soils publications located in the CES library. circa 1930-1944.</b>
Box 5, Folder 9	<b>List of arid zone publications in the life sciences that CES does not own (University Librarian's copy). 1950-1966.</b>
Box 22, Folder 5	<b>Bibliography compiled by the San Bernardino Free Public Library entitled <i>Citrus Fruits and Their Culture</i>. February 1913.</b>
Box 29, Folder 8	<b>Document entitled <i>Library Reference Card</i>. Includes bibliographic citations for articles on foreign citrus fruits. undated.</b>

---

**Personnel. Sub-series 1.5. 1914-1974, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains reports, notices, and other material pertaining to the staff and employees of the Citrus Experiment Station (CES). Materials primarily relate to staff meetings, payroll, bylaws, and employee regulations.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 1, Folder 9	<b>Lists of CES staff and employees. 1928-1934, 1954.</b>
Box 7, Folder 1	<b>Notices and bylaws of the Riverside Faculty Club. 1948.</b>
Box 8, Folder 11	<b>Report entitled <i>Outstanding Contributions made by the Staff of the California Agricultural Experiment Station, University of California for the Year 1960-61</i>. April 6, 1962.</b>
Box 9, Folder 3	<b>Payroll and salaries of CES employees. Includes correspondence and a booklet entitled <i>Estimate of the financial needs of the Department of Agriculture for the biennium ending June 30, 1919</i>. 1915-1923.</b>
Box 14, Folder 6	<b>Minutes for special and regular staff meetings 1-24 of the Graduate School of Tropical Agriculture and CES. Includes committee lists and council reports. 1914-1918.</b>
Box 14, Folder 7	<b>Minutes for special and regular staff meetings 25-40 of the Graduate School of Tropical Agriculture and CES. Includes committee lists and council reports. 1919-1940.</b>
Box 14, Folder 8	<b>Correspondence and bylaws of the CES staff organization (three copies). 1953-1957, undated.</b>
Box 14, Folder 9	<b>Annual report of the rules and procedure committee of the CES staff organization regarding the preparation of new bylaws. 1961-1962.</b>
Box 14, Folder 11	<b>Reports and summaries regarding activities, projects, and staff within CES and the division of subtropical horticulture. Contains salary information. 1923-1925.</b>
Box 16, Folder 4	<b>Pamphlets and memorandums regarding income taxes and general employment regulations. 1922-1955.</b>
Box 18, Folder 10	<b>Holiday letters from the CES office staff and Charles S. Papp. 1950, 1974.</b>
Box 19, Folder 6	<b>Interviews and reports from foreign visitors regarding their studies at CES. 1953-1955.</b>
Box 29, Folder 10	<b>Minutes of the editorial committee at UC Riverside. 1930-1934.</b>

---

**Publications. Sub-series 1.6. 1908-1964, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains bulletins, newsletters, memorandums, policies, tables, graphs, and card indexes pertaining to Citrus Experiment Station (CES) publications and the editorial office. Topics include citrus research and culture in California and pest control. Card indexes document the Citrus Research Center and Agricultural Experiment Station (CRC-AES) published papers. Issues of *California Agriculture* include articles by CES faculty. Histograms, graphs, scatter plots, and other sections within circulars and bulletins from the University of California Agricultural Experiment Station as well as issues of *Hilgardia*, do not have specific titles. Publications of the University of California College Of Agriculture, the California Alumni Association, and the California Agricultural Experiment Station are also included.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 18, Folder 7	<b>Memorandums to W.F. Calkins regarding the editing of articles published in CES journals. 1946-1957.</b>
Box 19, Folder 15	<b>Newsletters of the Department of Horticultural Science at the UC Citrus Research Center and Agricultural Experiment Station regarding plant growth. 1962-1963.</b>
Box 24, Folder 1	<b>Bulletins entitled <i>Publications of the Citrus Experiment Station</i>. Includes volumes 27-59. 1950-1964.</b>
Box 24, Folder 2	<b>University of California bulletin entitled <i>Prospectus of the College of Agriculture 1938-1939</i>, Vol. 31, No. 22. June 20, 1938.</b>
Box 24, Folder 3	<b>Circulars and bulletins published by the University of California College of Agriculture regarding citrus growing and culture in California, and CES and the Southern California Pathological Laboratory. 1908-1953.</b>
Box 24, Folder 4	<b>Reprint of <i>California Monthly</i> regarding the University of California Riverside campus. Includes original issue cover. 1947-1953.</b>
Box 25, Folder 1	<b>Articles from the <i>California Agricultural Experiment Station</i> regarding weed control and root rot (reprints). 1944.</b>
Box 25, Folder 16	<b>CES newsletters regarding the use of insecticides, pesticides, biological control, and other methods of pest control found in citrus fruits. 1924-1962.</b>
Box 27, Folder 7	<b>List of CES published papers. undated.</b>
Box 29, Folder 2-4	<b>Correspondence and other material of the CES editorial office regarding policies and procedures for manuscript publication. 1935-1960, undated.</b>
Box 63, Folder 1	<b><i>California Agriculture</i> Vol.1, issues 3-12. Includes articles written by CES faculty. March-December 1947.</b>
Box 63, Folder 2	<b><i>California Agriculture</i> Vol. 2, issues 1-12. Includes articles written by CES faculty. January-December 1948.</b>
Box 63, Folder 3	<b><i>California Agriculture</i> Vol. 3, issues 1-10 and 12. Includes articles written by CES faculty. January-December 1949.</b>
Box 63, Folder 4	<b><i>California Agriculture</i> Vol. 4, issues 1-12. Includes articles written by CES faculty. January-December 1950.</b>
Box 63, Folder 5	<b><i>California Agriculture</i> Vol. 5, issues 1-9. Includes articles written by CES faculty. January-September 1951.</b>
Box 63, Folder 6	<b><i>California Agriculture</i> Vol. 6, issues 1-12. Includes articles written by CES faculty. January-December 1952.</b>
Box 63, Folder 7	<b><i>California Agriculture</i> Vol. 7, issues 1-12. Includes articles written by CES faculty. January-December 1953.</b>
Box 63, Folder 8	<b><i>California Agriculture</i> Vol. 8, issues 1-12. Includes articles written by CES faculty. January-December 1954.</b>
Box 63, Folder 9	<b><i>California Agriculture</i> Vol. 9, issues 1-12. Includes articles written by CES faculty. January-December 1955.</b>
Box 63, Folder 10	<b><i>California Agriculture</i> Vol. 10, issues 1-2 and 4-12. Includes articles written by CES faculty. January-December 1956.</b>
Box 64, Folder 1	<b><i>California Agriculture</i> Vol. 11, issues 1-12. Includes articles written by CES faculty. January-December 1957.</b>

---

---

Box 64, Folder 2	<b>California Agriculture Vol. 12, issues 1-12. Includes articles written by CES faculty. January-December 1958.</b>
Box 64, Folder 3	<b>California Agriculture Vol. 13, issues 1,3,4,6, and 7. Includes articles written by CES faculty. January-December 1959.</b>
Box 64, Folder 4-5	<b>Tables from articles in <i>Hilgardia</i> Vols. 19-23. March 1949-January 1951.</b>
Box 64, Folder 6-7	<b>Charts, figures, and plates from articles in <i>Hilgardia</i> Vols. 21-23. Includes notes regarding citations and references to table figures. May 1951-May 1955.</b>
Box 64, Folder 8	<b>Graphs from California Agricultural Experiment Station bulletins 513-715. Includes notes regarding how to properly create graphs for publications. circa 1930-December 1949.</b>
Box 64, Folder 9	<b>Scatter plots from articles in <i>Hilgardia</i> Vols. 12-19, and the University of California Agricultural Experiment Station Bulletins 643 and 693. March 1939-October 1945.</b>
Box 64, Folder 9	<b>Histograms from articles in <i>Hilgardia</i> Vols. 13-19, the University of California Agricultural Experiment Station bulletins 527-686, and the University of California Agricultural Experiment Station circulars 372 and 393. 1932-June 1949.</b>
Box 65, Folder 1	<b>Bar graphs from articles in <i>Hilgardia</i> Vols. 12-19, University of California Agricultural Experiment Station bulletins 510-704, and University of California Agricultural Experiment Station circulars 128 and 366-394. January 1939-October 1949.</b>
Box 65, Folder 2	<b>Documents regarding the University of California College of Agriculture's agricultural bulletins, circulars, newsletters, <i>Hilgardia</i>, and other publications. Includes a publications office report and correspondence. October 1943-October 1956.</b>
Box 65, Folder 3-4	<b>Layouts for publications of University of California College of Agriculture bulletins, circulars, and <i>Hilgardia</i>. January 1938-April 1949.</b>
Box 65, Folder 7	<b>USDA bibliographical bulletin No. 12 entitled <i>List of Serials Currently Received in the Library of the United States Department of Agriculture</i> (editorial office copy). 1949.</b>
Box 66-68	<b>Card index for CES published papers (chronological by date of publication), CRC-AES published papers (chronological by date of publication and alphabetical A-E, O-Z), and scientific journals (alphabetical by author). circa 1923-1969.</b>

---

**Research. Sub-series 1.7. 1915-1975, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains reports, dissertations, articles, and other material regarding research programs and experiments conducted by the Citrus Experiment Station (CES) and the Department of Subtropical Agriculture. Topics include plant physiology, pest control, and the growth, production, and diseases of citrus, avocado, and other crops. Reports created in conjunction with the Agricultural Extension Service and the United States Department of Agriculture are also included.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 2, Folder 10	<b>Contract between Orange Tortrix Control Association and the Regents of the University of California regarding the investigation of orange tortrix insects. December 12, 1923.</b>
Box 14, Folder 4	<b>Summaries regarding activities and projects within CES for annual reports. 1920-1925.</b>
Box 14, Folder 10	<b>Reports and correspondence regarding a five-year research plan for CES. 1920-1923, undated.</b>
Box 15, Folder 1	<b>Progress report and partial list of research work on citrus, walnuts, dates, avocados, and other crops. Includes a report on the progress of research and extension of CES investigations. 1945-1947.</b>
Box 15, Folder 4	<b>Report entitled <i>Research program of the Experiment Station</i> (bound). 1950-1951.</b>
Box 15, Folder 5	<b>Report entitled <i>Research Program of the Experiment Station</i>. Circulated to academic staff with brief notes (bound). 1950-1951.</b>

---

---

Box 16, Folder 1	<b>Report of Committee Appointed to Consider the Field of Experiments to be Carried on by the Division of Subtropical Horticulture at the Citrus Experiment Station . circa 1928.</b>
Box 18, Folder 5	<b>Summaries of dissertations submitted for the degree of Doctor of Philosophy at the Graduate School of Tropical Agriculture and Citrus Experiment Station. 1915-1942.</b>
Box 19, Folder 5	<b>Report of the Department of Soils and Plant Nutrition regarding history and research. Includes a record of CES faculty publications. 1916-1960.</b>
Box 19, Folder 10	<b>Report outlining the research programs of CES and the department of subtropical horticulture. 1936.</b>
Box 19, Folder 12	<b>Reports prepared for citrus research advisory committee meetings regarding citrus research programs at CES. 1961-1975.</b>
Box 19, Folder 14	<b>Report suggesting improvements for the publicity of research conducted by CES and the Agricultural Extension Service at UC Riverside. 1951.</b>
Box 19, Folder 16	<b>Plant Physiology newsletter No. 14 entitled <i>Post-harvest handling of California Orange and Lemon Fruits</i>. December 1958.</b>
Box 20, Folder 10	<b>Articles, reports, and notes on avocado growth, research, and experiments by CES, the California Avocado Society, and Edward C. Koch. 1915-1972.</b>
Box 20, Folder 13	<b>Press releases regarding CES research and events. 1951-1952.</b>
Box 24, Folder 22	<b>Reports prepared for the Agricultural Extension Service in conjunction with CES regarding citrus diseases and pest control. 1932-1936, undated.</b>
Box 26, Folder 7	<b>Annual summaries of the Riverside County Date Enterprise Efficiency Study. Compiled by the Agricultural Extension Service at the University of California. 1934-1939.</b>
Box 27, Folder 3	<b>Report prepared by the Citrus Steering Committee regarding recommendations for the joint USDA-ARS-UC-AES program in citrus production research. 1976.</b>
Box 27, Folder 4	<b>Report entitled <i>CRIS Summaries of ARS-UCR-AES Citrus Production Research Projects</i>. 1971-1975.</b>
Box 43	<b>Laboratory equipment pertaining to CES. Includes test tubes, glass pipette, and other material. undated.</b>
Box 49	<b>Tycos frost alarm thermometer. Includes an invoice and letter sent to D.M. Kruse from the W.R. Ames Company. 1952, undated.</b>
Box 49	<b>Micrometer used to apply insecticides on insects in toxicity studies. undated.</b>
Box 65, Folder 5-6	<b>Reports on research conducted by faculty of the division of Entomology. 1938-1951.</b>

Series 2. **Faculty papers. 1873-1971, undated.**

**Series Scope and Content Summary**

This series contains correspondence, typescripts, reprints, reports, and other material created, collected, or received by Citrus Experiment Station (CES) faculty, research associates, and staff members. Topics include citrus, fig, date palm, and avocado research, citrus diseases, pest control, global citrus production, economic uses of citrus, and other subject areas. The papers of original CES staff member E.E. Thomas are also included.

For additional faculty papers concerning administrative matters, please consult Series 1, Administrative records.

**Series Arrangement**

This series is arranged sequentially by box and folder number.

---

Box 1, Folder 14	<b>Article written by Dr. Leon D. Batchelor for <i>California Monthly</i> regarding the Riverside campus; Correspondence, notes, and typewritten essays regarding plant physiology and entomology; Issue of <i>The California Campus</i> (March 17-27, 1947) which includes an article on subtropical research (two copies). 1946-1947.</b>
Box 1, Folder 16	<b>Articles, clippings, and press releases regarding CES faculty members Robert L Metcalf and Walton B. Sinclair. Includes information regarding the retirement of Dr. A.M. Boyce and Dr. Homer D. Chapman. 1960-1969.</b>
Box 2, Folder 9	<b>Obituaries of CES faculty members. 1923, 1943-1946.</b>
Box 3, Folder 4	<b>Correspondence, receipts, telegrams, postcards, and clippings created or received by Dr. Walter P. Kelley. 1915-1937.</b>

---



---

Box 3, Folder 6	<b>Correspondence from H. Towers Bigelow to A.D. Shamel regarding x-ray action on plants. March 30, 1926.</b>
Box 5, Folder 7	<b>Bibliographies of publications, papers, and reprints written by CES staff members. 1916-1965, undated.</b>
Box 7, Folder 2	<b>Correspondence of Dr. H.B. Frost regarding citrus research and horticultural terminology. Includes an article entitled <i>Polyembryony, Heterozygosis, and Chimeras in Citrus from Hilgardia</i>, Vol. 1, No. 16. 1921-1951.</b>
Box 7, Folder 3	<b>Correspondence, notes, and reports created or received by E.E. Thomas regarding CES experiments in soil analyses and chemistry, and the prevention of brown rot. Includes an index to soil analyses for the CES reports for 1877-1904. 1877-1914, undated.</b>
Box 7, Folder 6	<b>Correspondence of E.E. Thomas regarding Synapsis Club meetings, expenditures, and samples used for experimentation for the Southern California Pathological Laboratory. 1910-1916.</b>
Box 7, Folder 7	<b>Correspondence of E.E. Thomas regarding experiments of citrus trees. Includes a list of county horticulture commissioners of California. 1911-1915.</b>
Box 7, Folder 8	<b>Correspondence of E.E. Thomas regarding expense accounts and official titles. 1914-1916.</b>
Box 7, Folder 9	<b>Correspondence of E.E. Thomas regarding experiments and maintenance of citrus trees. 1912-1916.</b>
Box 7, Folder 10	<b>Correspondence of E.E. Thomas regarding traveling expenses. Includes a personal biography. 1910-1914.</b>
Box 7, Folder 11	<b>Correspondence of E.E. Thomas regarding the Western American Phytopathological Society, and expense accounts and experiments of the Southern California Pathological Laboratory. 1910-1916.</b>
Box 7, Folder 12	<b>Correspondence of E.E. Thomas regarding expense accounts and citrus nematode. 1913-1916.</b>
Box 7, Folder 13	<b>Correspondence of E.E. Thomas regarding soil samples and analyses, and citrus experiments. 1910-1916.</b>
Box 7, Folder 14	<b>Correspondence between E.E. Thomas and J.H. Norton regarding soil samples and analyses, and citrus research. 1909-1911.</b>
Box 7, Folder 15	<b>Correspondence between E.E. Thomas and J.B. Neff regarding citrus and walnut tree research. 1911-1913.</b>
Box 7, Folder 16-17	<b>Correspondence of E.E. Thomas regarding soil samples and analyses, and citrus diseases. 1910-1916.</b>
Box 7, Folder 18	<b>Correspondence of E.E. Thomas regarding soil analyses, field experiments, and extension school programs. 1911-1916, undated.</b>
Box 7, Folder 19	<b>Correspondence of E.E. Thomas regarding expense accounts and supplies for the Southern California Pathological Laboratory, and soil analyses and citrus diseases. 1911-1916.</b>
Box 7, Folder 20	<b>Correspondence between J.H. Thomas and the Nuevo Cemetery Association regarding the reorganization of the Association. June 24, 1914.</b>
Box 7, Folder 21	<b>Correspondence of E.E. Thomas regarding expense accounts and analyses of irrigation systems and soil samples. 1917-1918.</b>
Box 8, Folder 1	<b>Correspondence of E.E. Thomas regarding soil analyses, water irrigation, and citrus diseases. 1917-1918.</b>
Box 8, Folder 2	<b>Correspondence, notes, and articles regarding E.E. Thomas's research on agriculture, citrus nematodes, and citrus diseases. 1911-1915, 1979.</b>
Box 8, Folder 4	<b>Article by E.E. Thomas entitled <i>A Preliminary Report of a Nematode Observed on Citrus Roots and Its Possible Relation with the Mottled appearance of Citrus Trees</i> (one reprint and one copyedited typescript). 1913.</b>
Box 8, Folder 10	<b>Article entitled <i>California Citrus Packinghouse Practices, 1910-1914</i> by L.J. Klotz (typescript); Handwritten notes on <i>A History of Citrus in the Riverside Area</i> by Esther Klotz (photocopy). undated.</b>
Box 17, Folder 6 Box 19, Folder 1	<b>Transcript of an interview with William Henry Chandler regarding his life. 1968. Autobiography of Hu Chang-chih detailing his research projects, publications, family life, and academic achievements. Includes correspondence and a report entitled <i>Citrus Fruits in China</i>. 1934, 1950-1953.</b>

---

---

Box 19, Folder 4	<b>Report of sabbatical leave from April 19, 1957 to June 30, 1957 by H.D. Chapman. 1957.</b>
Box 19, Folder 8	<b>Reports entitled <i>Observations on the Citrus Industry of the Union of South Africa with Special Reference to Virus Diseases</i>, and <i>A Study of Citrus Virus Diseases in Some South American Countries in 1959</i> by James M. Wallace. circa 1959, undated.</b>
Box 19, Folder 19	<b>Articles entitled <i>Observations of Citrus Diseases in China</i> (typescript), <i>Studies of Rapid Decline of Citrus in China</i> (typescript), and <i>Convex Gum, A New Disease of Citrus in China</i> by Lin Kung-Hsiang (reprint). Includes correspondence and editorial comments. 1942-1952.</b>
Box 19, Folder 20	<b>Correspondence and photographs of Lin Kung-Hsiang regarding citrus diseases, travel, family life, and other matters. 1941-1948.</b>
Box 19, Folder 23	<b>Reports by CES faculty members regarding research on irrigation, soils, citrus diseases, and air pollutants. 1932-1942, undated.</b>
Box 19, Folder 24	<b><i>Observations on the Culture and Diseases of Date Palms in North America</i> by H.S. Fawcett from the 8th Annual Report of Date Growers Institute (reprint). April 3-4, 1931.</b>
Box 20, Folder 2	<b>Report entitled <i>Clitocybe Mushroom Rot</i> by D.E. Bliss. July 1941.</b>
Box 20, Folder 5	<b><i>Report of European Trip in May, 1957: Impressions of Biphenyl Situation, Attitude Toward Ammonia, Details of Carton Conditions, and Miscellaneous Aspects of the Citrus Import Situation</i> by Francis A. Gunther. Submitted through the Fungicide Committee of the Department of Plant Pathology. September 24, 1957.</b>
Box 20, Folder 6	<b>Correspondence, articles, and typescripts on subtropical agriculture crops, and other material created or received by Robert W. Hodgson. 1908-1944, undated.</b>
Box 20, Folder 7	<b>Papers and correspondence of Gustav Eisen regarding figs. Received by Dr. I.J. Condit from Ernest Braunton. Turned over to the library on November 17, 1942. 1873-1942.</b>
Box 21, Folder 4	<b>Article entitled <i>1873-Washington Navel Orange Came to Riverside</i> by C.S. Pomeroy. undated.</b>
Box 21, Folder 7	<b><i>Proceedings of the Citrus Variety and Breeding Conference</i> held at the U.S. Horticultural Station in Orlando, Florida (A.M. Boyce's copy). October 20-23, 1959.</b>
Box 21, Folder 12	<b>Articles regarding the parthenocarpy of citrus fruits (typescripts). Translated from Japanese to English by R.W. Hodgson. 1904-1910, 1940.</b>
Box 21, Folder 13	<b>Report entitled <i>The Orange Industry in Spain</i> by M. Von Der Hoek (H.J. Webber's copy). 1927.</b>
Box 22, Folder 6	<b><i>The California Countryman</i>, Vol. 14, No. 5. Includes articles written by H.J. Webber, R.W. Hodgson, and Ira J. Condit. January 1928.</b>
Box 23, Folder 8	<b>Report entitled <i>Insulating Value of Tree Wrapping Materials</i> by Todd V. Crawford. Includes photographs (R.G. Platt's copy). 1964.</b>
Box 23, Folder 10	<b>Articles and clippings regarding the research and growth of peaches, avocados, guavas and chestnuts, and the CES by M.M. Winslow and associates. 1949-1961.</b>
Box 24, Folder 5	<b>Speech given at the 61st annual meeting of the American Association of Economic Entomologists by A.M. Boyce entitled <i>Entomology of Citrus and its Contributions to Entomological Principles and Practices</i> (reprint). December 1950.</b>
Box 24, Folder 8	<b>Statistics on the citrus industry in Japan from the Japan Fruit Growers Cooperative Association (R.G. Platt's copy). 1966-1967.</b>
Box 24, Folder 9	<b>Citriculture lecture by Professor G.W. Groff (typescript). December 3, 1933.</b>
Box 24, Folder 17	<b>Typescript entitled <i>Fruit-Trees</i> by G.T. Bentoni (J.Eliot Coit's Copy). 1913.</b>
Box 24, Folder 21	<b>Reports written by J.C. Johnston regarding citrus irrigation and citrus tree pruning. 1945.</b>
Box 24, Folder 18	<b>Thesis entitled <i>A Contribution to the Knowledge of the Development of the Fruit of Citrus Vulgaris Risso and Other Kinds of Citrus</i> by Max Biermann (translated by Maris L Thoms). 1896, 1939.</b>
Box 24, Folder 19	<b>Report entitled <i>A Contribution to the Knowledge of Orange Culture</i> by Edmund Goeze (translated by Maris L. Thoms). 1874, 1939.</b>
Box 24, Folder 23	<b>Report entitled <i>Review of Literature on the Injurious Effects of Industrial and Domestic Smokes and Fumes</i> compiled by Lucille K. Bartholomew and edited by E.T. Bartholomew. 1946.</b>

---

---

Box 25, Folder 4	<b>Literature review written by Irving L. Eaks regarding the degreening of citrus fruits. July 1955.</b>
Box 25, Folder 6	<b>Document entitled <i>Reports of Consultantship to Division of Environmental Sanitation, W.H.O. Geneva</i> written by Robert L. Metcalf (Includes final and copyedited typescripts). 1957.</b>
Box 25, Folder 7	<b>Papers regarding the World Health Organization's scientific group on the evaluation and testing of insecticides. Includes correspondence and preliminary reports by R.L. Metcalf and R.B. March. 1959-1960.</b>
Box 25, Folder 11	<b>Notes and descriptions regarding the North American Syrphidae by Paul R. Jones (handwritten). circa 1891-1903.</b>
Box 25, Folder 13	<b>Notes and correspondence created or received by R.L. Metcalf regarding pesticides, insecticides, and food production. Includes a report by R.G. Strong entitled <i>A Study to Determine the Influence of the Type of Formulations Used in Protective Sprays for Stored Wheat When Applied as Solutions, Emulsions, or Wettable Powders</i> . 1959-1961.</b>
Box 25, Folder 14	<b>Laboratory report regarding the fumigant Compound W-24. Includes correspondence to R.L. Metcalf. 1961.</b>
Box 25, Folder 15	<b>Typescript entitled <i>Studies of the Biology of the Citrus Red Mite Paratetranychus citri</i> McGregor (author unknown). Received from Dr. Lee Jeppson. circa 1938-1945.</b>
Box 25, Folder 17	<b>Correspondence from A.M. Boyce regarding a Citrus Research Advisory report on citrus growing and diseases. February 9, 1962.</b>
Box 26, Folder 4	<b>Annual reports issued by the date advisory board in Indio, California regarding marketing orders for date fruit (J.R. Furr's copy). 1947-1950.</b>
Box 26, Folder 5	<b>Report entitled <i>Some Economic Aspects of the California Date Industry</i> prepared by the Agricultural Extension Service at the University of California (two copies). March 1941.</b>
Box 26, Folder 6	<b>Article entitled <i>New and Successful Method of Rooting Date-Palm Offshoots</i> by J. Eliot Coit from <i>The University of California Journal of Agriculture</i>, Vol. 4, No. 2. October 1916.</b>
Box 26, Folder 11	<b>Reports and papers regarding diseases of date palms by Donald E. Bliss (includes reprints). 1938-1940, undated.</b>
Box 27, Folder 6	<b>Report entitled <i>A Study of the Chemical and Physical Factors Influencing Postharvest Changes in the Texture and Quality of Mechanically Harvested Deglet Noor Dates</i> by C.W. Coggins, J.C.F. Knapp, and Alice L. Ricker. January 1969.</b>
Box 27, Folder 8	<b>Typescripts of published papers written by CES staff. 1937-1946, undated.</b>
Box 29, Folder 1	<b>Newsletters entitled <i>Subtropical Notes and Orchard Run</i> by Robert G. Platt and Karl W. Opitz (W. Reuther copy). 1968-1971.</b>
Box 29, Folder 7	<b>Correspondence between W.P. Bitters and Art Jones regarding exocortis, necrosis, and chlorosis in oranges. 1956.</b>
Box 42, Folder 15	<b><i>The Origins of Citrus Research in California</i> from <i>The Citrus Industry</i>, Vol. 5, Chapter 5 by Harry W. Lawton and Lewis G. Weathers (photocopy). 1989.</b>
Box 42, Folder 16	<b>Press release and article regarding a UC publication entitled <i>Leaf and Soil Analysis in Citrus Orchards</i> by Homer D. Chapman. April 1960.</b>
Box 48, Folder 5	<b>Term paper entitled <i>Anatomy and Histology of the Digestive System of the Phenacoccus gossypii, Towns. and Ckll. with Special Reference to the Morphology of the Filter Chamber</i> by Paul DeBach. undated.</b>
Box 48, Folder 6	<b>Article entitled <i>Early History of the Avocado</i> by Wilson Popenoe (typescript). undated.</b>
Box 48, Folder 7	<b>Thesis entitled <i>Pollination of Cherimoyas in California</i> by E.C. Raby under the joint direction of W.T. Horne and H.S. Reed. October 1931.</b>

---

---

Series 3. **Citrus industry records and publications. 1890-1991, undated.**

**Series Scope and Content Summary**

This series contains reprints, typescripts, reports, and other material pertaining to the citrus industry. Topics include global production and marketing of citrus and avocado crops, citrus diseases, citrus physiology, soil management, frost protection, entomology, and the history of citrus and avocado industries in California, including the introduction of the first Washington Navel Orange tree to Riverside.

**Series Arrangement**

This series is arranged sequentially by box and folder number.

Box 5, Folder 8	<b>Bibliography of papers by T.D.A. Cockerell on Coccidae. Compiled by G.F. Ferris. 1889-1937.</b>
Box 5, Folder 10	<b>Programs, meeting minutes, and bylaws of the California Citrus Institute. 1913-1955.</b>
Box 8, Folder 3	<b>Clippings from <i>Scientific American</i>, <i>Pittsburgh Gazette Times</i>, and <i>Journal of the American Medical Association</i> regarding the use of radium in agriculture. 1913-1914.</b>
Box 17, Folder 5	<b>Interview with Byron O. Clark at Los Altos, April 13, 1928 regarding the history of Valencia orange trees. 1928.</b>
Box 17, Folder 7	<b>Program of the conference on citrus virus diseases (three copies). November 18-22, 1957.</b>
Box 18, Folder 1	<b>Diary regarding carob and jojoba history. 1948-1958.</b>
Box 18, Folder 3	<b>Official program of the International Citrus Symposium. March 16-26, 1968.</b>
Box 18, Folder 6	<b>Letter regarding entomology and plant quarantine from the U.S. Department of Agriculture's Agricultural Research Administration. August 22, 1945.</b>
Box 18, Folder 8	<b>Label for orange pulp manufactured for the California fruit growers exchange. undated.</b>
Box 18, Folder 9	<b>Leaflet containing instructions for citrus fruit picking and handling. undated.</b>
Box 18, Folder 11	<b>Report from the Whittier Laboratory on the damage to citrus fruits caused by the freeze of January 6, 1913. 1913.</b>
Box 19, Folder 2	<b>Citizens National Trust and Savings Bank calendar featuring an illustration of CES. 1935.</b>
Box 19, Folder 7	<b>Manuscript and typescript of an article entitled <i>The Nicori Palm of Bahia. Described in Dept. Bulletin as Cocos coronata-- Arikury schizophylla (Beccari)</i> by J. Harrison Wright. January 1918.</b>
Box 19, Folder 11	<b>Report of the Riverside County agricultural economic conference held at CES February 24-25, 1937; Glossary of soil terminology. 1926-1937.</b>
Box 19, Folder 13	<b>Articles and reports on weed control research for citrus and avocado orchards. 1963, undated.</b>
Box 19, Folder 17	<b>Report entitled <i>The Guayule Plant as a Source of Rubber</i>. circa 1942.</b>
Box 19, Folder 18	<b>Correspondence and report regarding a plan for the Agricultural Extension Service to organize a volunteer state militia for California. May 1942.</b>
Box 19, Folder 21	<b>Letter from Captain David Porter regarding the use of lemons as a staple ration for American sailors (facsimile). 1811.</b>
Box 19, Folder 22	<b>List of the San Bernardino County horticultural commissioner's fumigation rules. undated.</b>
Box 19, Folder 25	<b>Document entitled <i>Story of the Navel Orange in California</i> printed on an original Washington navel orange wrapper. 1880, 1917.</b>
Box 19, Folder 26	<b><i>The Fig of Commerce, Its Culture and Curing and a Descriptive Catalogue of all Its Known Varieties</i> by Gustav Eisen from <i>Rural Californian</i>, Vol. 11 (reprint). 1888.</b>
	<b>Note</b>
	For correspondence and papers regarding Gustav Eisen please consult Series 2, Faculty papers: Box 20, Folder 7.
Box 20, Folder 1	<b>Report entitled <i>Studies of the Biology of Encyrtus infelix (Embleton), (Hymenoptera, Encyrtidae), a Parasite of Saissetia hemisphaerica (Targioni), (Homoptera, Coccidae)</i> by Thomas Wiley Sering (typescript). circa 1933.</b>
Box 20, Folder 3	<b>Report entitled <i>A Wilt Disease Attacks the American Persimmon</i> by R. Kent Beattie and Bowen S. Crandall (copyedited typescript). Includes photographs. 1939.</b>

---

Box 20, Folder 4	<b>J. Harrison Wright index on palms (typescript). 1921.</b>
Box 20, Folder 8	<b>Notes, descriptions, and observations of avocado varieties located in California and Mexico. 1936-1940.</b>
Box 20, Folder 9	<b>Typescript entitled <i>Sales Methods and Policies of the Calavo Growers of California</i> by E.A. Stokdyk (copyedited typescript). circa 1932.</b>
Box 20, Folder 11	<b>Report entitled <i>The Avocado Industry in San Diego County</i> by J.G. France (three copies). November 1928.</b>
Box 20, Folder 12	<b>Report entitled <i>An Investigation of the Oxygen and Carbon Dioxide Content of Soil Air in Relation to Citrus and Avocado Root Rot</i> by J.R. Furr. circa 1950.</b>
Box 21, Folder 1	<b>Index regarding a serials subject search on avocados. 1979.</b>
Box 21, Folder 2	<b>Articles regarding the history of avocados and avocado production in Florida (typescripts). 1944-1967.</b>
Box 21, Folder 3	<b>Program of the 5th semiannual meeting of the California Avocado Association (two copies). October 26-27, 1917.</b>
Box 21, Folder 5	<b>Correspondence, clippings, and essays regarding the introduction of the Washington navel orange tree to Riverside, California. 1873-1944, undated.</b>
Box 21, Folder 6	<b>Remarks of Hon. William Kettner of California in the House of Representatives from the <i>Washington Navel Orange Anniversary Celebration</i>. Published in the <i>Congressional Record</i>. September 8, 1914.</b>
Box 21, Folder 8	<b>Reports by the United States Department of Agriculture Bureau of Agricultural Economics regarding news on citrus fruit outside of the United States. 1925-1929.</b>
Box 21, Folder 9	<b>Reports regarding resolutions of matters discussed at the western plant quarantine board meetings. 1936-1938.</b>
Box 21, Folder 10	<b>Articles regarding gummosis of citrus (typescripts). 1910-1911.</b>
Box 21, Folder 11	<b>Clipping entitled <i>How to Care for Mature Citrus Trees</i> by Bill Sidnam and leaflet entitled <i>Planting Instructions for Citrus</i> by K.W. Hench. 1976, 1993.</b>
Box 21, Folder 14	<b>Article entitled <i>The Tomato Seedbed for the Late Fall Crop</i> by J.W. Lesley (typescript). May 1924.</b>
Box 21, Folder 15	<b>Reports, pamphlets, and other material regarding the production, marketing, and economics of growing citrus fruit (includes typescripts). 1907-1986, undated.</b>
Box 21, Folder 16-17	<b>Articles and papers regarding citrus diseases. Includes photocopies, reprints, and typescripts. 1900-1977.</b>
Box 21, Folder 18	<b>Articles regarding acid content within citrus fruits (one reprint and one typescript). 1931.</b>
Box 22, Folder 1	<b>Articles and papers regarding mineral deficiencies and vitamin and oil content within citrus fruits (includes reprints and typescripts). 1931-1944.</b>
Box 22, Folder 2	<b>Articles and reports regarding growth, research, and diseases of lemons (reprints and typescripts). Includes an article by L.D. Batchelor. 1895-1943.</b>
Box 22, Folder 3	<b>Report entitled <i>A Progress Report on a Large Scale Manurial Experiment on Marsh Grapefruit</i> by E.J. Gregory; Article entitled <i>Grapefruit Growing in Florida</i> by J.C. Th. Uphof (reprint). 1938.</b>
Box 22, Folder 4	<b>Opening remarks of a meeting conducted by Robbins Russel regarding Real Gold citrus products. June 28, 1950.</b>
Box 22, Folder 7	<b>Interim report entitled <i>The Boron Tolerance of Citrus Trees</i> by C.S. Scofield; Article entitled <i>Boron Problems in the Citrus Industry</i> by W.E. Baier (reprint). 1938, 1952.</b>
Box 22, Folder 8	<b>Color charts from the Florida Citrus Commission entitled <i>Citrus Insects, Diseases, and Deficiencies</i>. 1946, 1952.</b>
Box 22, Folder 9	<b>Articles and reports regarding experiments and investigations of citrus fruits (includes reprints and typescripts). 1932-1959.</b>
Box 22, Folder 10-11	<b>Articles regarding the physiology and morphology of citrus fruits (includes reprints and typescripts). 1908-1963.</b>
Box 22, Folder 12	<b>Articles and reports regarding studies of citrus varieties and citrus culture in India, the Azores, and Italy (includes reprints and typescripts). 1877-1957, undated.</b>
Box 22, Folder 13	<b>Articles and reports regarding studies of citrus varieties and citrus culture in China and Australia (includes reprints and typescripts). 1890-1935, undated.</b>
Box 22, Folder 14	<b>Articles and reports regarding studies of citrus varieties and citrus culture in Africa, Egypt, Southern Iran, and Brazil (includes reprints and typescripts). 1904-1973.</b>

---

---

Box 22, Folder 15	<b>Articles regarding the fertilization of citrus trees and citrus seedlings (reprint). Includes one report entitled <i>Soil Mix and Fertilizer Program Used for Citrus</i> by Paul W. Moore (typescript). 1890-1959, undated.</b>
Box 23, Folder 1	<b>Articles regarding the history of the citrus industry in Florida and California (includes reprints). 1925-1945.</b>
Box 23, Folder 2	<b>Articles and papers regarding citrus origins, growth, and variations (includes photocopies, reprints, and typescripts). 1888-1963.</b>
Box 23, Folder 3	<b>Articles by Antonio Milella regarding the growth and maintenance of citrus (reprints). 1963-1968.</b>
Box 23, Folder 4	<b>Articles by P. Deidda regarding the floral biology of citrus (reprints). 1968.</b>
Box 23, Folder 5	<b>Article entitled <i>Quelle est l'origine exact du Clementinier ( What is the Exact Origin of the Clementine)</i> by J.H. Fauvel from <i>Revue d'Horticulture and d'Agriculture de l'Afrique du Nord</i>, Annee 43, No. 3 (reprint). March 1939.</b>
Box 23, Folder 6	<b>Articles regarding the industrialization and marketing of citrus fruits in the United States and Spain (one reprint and one typescript). 1949-1954.</b>
Box 23, Folder 7	<b>Articles regarding the use of citrus fruits for economic and medicinal purposes (reprints). 1937-1941.</b>
Box 23, Folder 9	<b>Pamphlet regarding information about The Orangery, a Citrus Nursery located in San Jose, California. Includes a list of species and varieties of citrus. circa 1973.</b>
Box 23, Folder 11	<b>Articles regarding citrus fruit juice (includes reprints and one typescript). 1928-1955.</b>
Box 23, Folder 12	<b>Articles regarding the storage of citrus fruits (one reprint and one typescript). 1934, 1946.</b>
Box 23, Folder 13	<b>Articles regarding irrigation systems used for growing citrus fruits (one typescript and one photocopy). 1911, 1974.</b>
Box 23, Folder 14	<b>Articles regarding the use of lead arsenate, nitrate, and oil emulsion sprays on citrus fruit (reprints). Includes one report entitled <i>Insecticidal and Phytocidal Properties of Diesel Oil-Bentonite Emulsions</i> by G.T. Brown. 1931-1938.</b>
Box 23, Folder 15	<b>Articles regarding the santra orange by S.S. Bhat (reprints). 1934.</b>
Box 24, Folder 6	<b>Visitors' book for documenting problems and recommendations of grove sites. Comprised of removable forms labeled <i>Visitor's Reference Card</i>. 1915-1917.</b>
Box 24, Folder 7	<b>Report from the crop reporting board of the Bureau of Agricultural Economics of the United States Department of Agriculture regarding estimates of citrus production and utilization. 1934-1944.</b>
Box 24, Folder 10	<b>Pamphlet regarding the National Orange Show's citrus fruit judging competition. 1960.</b>
Box 24, Folder 11	<b>Documents regarding a serials subject search on citrus and orange crops. undated.</b>
Box 24, Folder 12	<b>Application and pamphlet regarding orchid heater operations and regulations; Correspondence regarding the deterioration of orchard heaters. 1914, undated.</b>
Box 24, Folder 13	<b>Poster entitled <i>Sunset Guide to All the Garden Citrus</i> by Sunset Magazine. undated.</b>
Box 24, Folder 14	<b>Articles regarding loquat trees (one reprint and one typescript). 1913-1935.</b>
Box 24, Folder 15	<b>Article entitled <i>Control of Periodicity of Yields of Tangerines</i> by I.A. Tavberidze from <i>Soviet Subtropics</i>, Vol. 5, No. 45 (reprint). May, 1938.</b>
Box 24, Folder 16	<b>Report entitled <i>Citrus Fruits - Facts Concerning the History, Production and Consumption of Citrus Fruits</i> by Gilbert Wesley Manis. April, 1939.</b>
Box 24, Folder 20	<b>Article entitled <i>L'hybridation des Citrus: une Nouvelle Tangerine: La Clementine</i> by L. Trabut (photocopy). 1902.</b>
Box 25, Folder 2	<b>Surveys, news releases, reports, and experiments regarding frost protection for citrus fruits. 1924-1949.</b>
Box 25, Folder 3	<b>Patent awarded to Frank F. Chase regarding the use and improvement of gravity fruit separators for the elimination of orange frost. 1918.</b>
Box 25, Folder 5	<b>News release and pamphlets by Sunkist Growers Inc. regarding grapefruit and orange crops. 1991, undated.</b>
Box 25, Folder 8	<b>Constitution for the Pomological Society of California (handwritten draft). undated.</b>
Box 25, Folder 9	<b>Articles regarding purple and red scale. 1909, 1962.</b>
Box 25, Folder 10	<b>Articles regarding biological control of avocado and citrus pests (reprints). 1933-1961.</b>
Box 25, Folder 12	<b>Articles regarding the effects of insecticides and fungicides on citrus fruit (one typescript and one reprint). 1933, 1937.</b>

---

---

Box 25, Folder 18	<b>Articles, reports, and brochures regarding oriental and Mediterranean fruit flies and their association with citrus fruits. 1904-1956.</b>
Box 25, Folder 19	<b>Report entitled <i>Soil Management Erosion Control Extension Project Comprising the West End of San Bernardino Valley Inaugurated 1935</i> by H.J. Wilder. circa 1947.</b>
Box 26, Folder 1	<b>Articles written by C.L. Metcalf regarding black flies and other biting flies of the Adirondack Mountains (typescript drafts). undated.</b>
Box 26, Folder 2	<b>Articles, bulletins, and reports regarding parasites, mites, and insects common to citrus fruits. Includes reprints and typescripts. 1899-1988.</b>
Box 26, Folder 3	<b>Brochure by the Beaver-Remmers-Graham Company regarding their insecticide <i>Grandpa's Wonder Pine Tar Soap Spray</i>. circa 1932.</b>
Box 26, Folder 8	<b>Pamphlet entitled <i>Extracts from the Agricultural Code of California Pertaining to General Provisions and Fruit, Nut, and Vegetable Standardization</i> published by the Department of Agriculture in California. September 15, 1945.</b>
Box 26, Folder 9-10	<b>United States Department of Agriculture <i>Experiment Station Records</i>, Vol. 8, No. 1-12. 1896-1897.</b>
Box 26, Folder 12	<b>Document entitled <i>List of Species of Cactus Growing in White's Park, Riverside, California</i> (two copies). Includes a list of updates and corrections by C.S. Pomeroy. September 1910-October 1933.</b>
Box 27, Folder 1	<b>Notebook regarding insects and parasites (handwritten). circa 1910.</b>
Box 27, Folder 2	<b>Lists of common and botanical names for fruits, ornamentals, and flowers and shrubs. undated.</b>
Box 27, Folder 5	<b>Pamphlets regarding the cost of producing lemons and oranges in California by G. Harold Powell, secretary and manager of the Citrus Protective League of California. 1910.</b>
Box 29, Folder 5	<b>Report entitled <i>Bermuda and Johnson Grass Control in Riverside County</i> by O.A. Harvey, L.W. Burri, and A.F. Van Maren. March 28, 1958.</b>
Box 48, Folder 1	<b>Hardcover book entitled <i>Industria E Commercio dei Derivati Agrumari Essenze - Citrato di Calcio - Acido Citrico ( Industry and Trade Derivatives in Citrus Essences- Calcium Citrate - Citric Acid)</i> by Carlo Rodano. 1930.</b>
Box 48, Folder 2	<b>Paperback book and brochure regarding citrus tree fumigation. 1934, undated.</b>
Box 48, Folder 3	<b>Report entitled <i>Some Measurements of Nocturnal Radiation</i> by C. Lorenzen Jr., F.A. Brooks, and L.M.K. Boelter. undated.</b>
Box 48, Folder 4	<b>Report entitled <i>Alfalfa Disease Investigations in California</i> by J.L. Weimer. 1929-1935.</b>
Box 48, Folder 8	<b>Article entitled <i>Effect of Arsenical Compounds on Citrus Fruit</i> by I. Takahashi (typescript). 1929.</b>
Box 48, Folder 9	<b>Report entitled <i>Status of Horticulture in Peru</i> by Ralph H. Gray. 1930-1931.</b>

Series 4. **History of the Citrus Experiment Station. 1899-1978, undated.**

**Series Scope and Content Summary**

This series contains correspondence, essays, clippings, photographs, and other material regarding the history of the Citrus Experiment Station (CES). Topics include the establishment of CES in Riverside, California, its early activities, and building dedications. Senate and assembly bills regarding the purchase of land for the organization are also included.

For additional material regarding the early history and establishment of CES, please consult Series 5, Scrapbooks.

Select materials from this series have been digitized and are available online.

 <https://calisphere.org/collections/27141/>

**Series Arrangement**

This series is arranged sequentially by box and folder number.

---

Box 1, Folder 1	<b>Correspondence of James J. Burgess, J.W. Mills, A.J. Drothzen, and E.W. Holmes regarding the growth and maintenance of citrus trees; Speech of John Henry Reed regarding the establishment of an experiment station in Riverside, California; Memorandum from George A. Pettitt to Edward G. Berenson regarding the establishment of CES. 1899-1901, 1953.</b>
-----------------	---

---

---

Box 1, Folder 2	<b>Correspondence from local committees regarding the establishment of CES in Riverside, California; Clippings regarding the passage of a bill to allow for purchase of land by the regents. 1913-1914.</b>
Box 1, Folder 3	<b>Document entitled <i>Preliminary Outline to Show that the Institution Should Remain at Riverside</i> (two copies). April 14, 1914.</b>
Box 1, Folder 4	<b>Note submitted to the special committee of the Regents of the University of California regarding CES. May 8, 1914.</b>
Box 1, Folder 5	<b>Document entitled <i>Arguments for the Establishment of such an Institute in Connection with the Citrus Experiment Station at Riverside</i> (two copies). circa 1916.</b>
Box 1, Folder 7	<b>Senate and assembly bills regarding the purchase of lands for CES. circa 1915-1917.</b>
Box 1, Folder 10	<b>Essays, articles, and press releases regarding the history of CES. 1918-1978.</b>
Box 1, Folder 11	<b>Clippings and photographs regarding the establishment of CES (includes photocopies). 1900, 1914, undated.</b>
Box 1, Folder 12	<b>Essays and documents regarding the history of CES and a visit to CES. undated.</b>
Box 1, Folder 13	<b>Report on the history and activities of CES (two copies each of the 1949 and 1951 reports); Report entitled <i>Concerning the Accidental Death of Keith E. Hughes from Exposure to Parathion</i>. 1947-1953.</b>
Box 1, Folder 15	<b>Brochure containing a map and brief history of CES (three copies). undated.</b>
Box 1, Folder 17	<b>Clippings, invitation, and program (three copies) regarding the dedication speeches for CES held on March 27, 1918. March 1918.</b>
Box 1, Folder 18	<b>Speeches given during the dedication of Agricultural Hall, Berkeley, California (reprint). November 20, 1912.</b>
Box 1, Folder 19	<b>Program for the dedication of Hilgard Hall, UC Berkeley. October 13, 1917.</b>
Box 1, Folder 20	<b>CES building dedication speeches (one original copy and three reprints). March 27, 1918.</b>
Box 48, Folder 10	<b>Legislative bills, estimates of expenditures, and other documents brought over from the Whittier Pathological Laboratory to be retained as items regarding the development of CES (bound). 1909-1913, undated.</b>

Series 5. **Scrapbooks. 1908-1957.**

**Series Scope and Content Summary**

This series is comprised of both bound and disassembled scrapbooks pertaining to the early history and establishment of the Citrus Experiment Station (CES), citrus research, the citrus industry, citrus fruit recipes, and CES faculty, events, and facilities. Scrapbooks contain memorandums, clippings, programs, and other material. Scrapbooks located in boxes 31-36 may have belonged to CES publications editor Francis Hayes, whose signature is inscribed on many of the materials within them. Clippings regarding UC Riverside faculty and the establishment of UC Riverside as a university are also included.

For additional material regarding the early history and establishment of CES, please consult Series 4, History of the Citrus Experiment Station.

**Series Arrangement**

This series is arranged sequentially by box and folder number.

---

Box 28, Folder 1-73	<b>Clippings, photographs, correspondence, and other material regarding research, anniversaries, and achievements of CES. 1934-1957.</b>
Box 29, Folder 9	<b>Bylaws, photographs, clippings, and other material regarding the early history and research of CES (bound). 1908-1931.</b>
Box 30, Folder 1-8	<b>Clippings regarding citrus research, the citrus industry, and the establishment of CES. 1912-1944.</b>
Box 31, Folder 1-7	<b>Memorandums, programs, and clippings regarding citrus diseases, developments in the citrus industry, and information regarding CES faculty, research, and events. 1914-1947.</b>
Box 32, Folder 1-6	<b>Memorandums, programs, and clippings regarding the establishment of UC Riverside as a university, developments in the citrus industry, and information regarding CES faculty, research and events. 1947-1950.</b>
Box 33, Folder 1-6	<b>Memorandums, programs, and clippings regarding the establishment of UC Riverside as a university, citrus research and diseases, pest control, and citrus fruit recipes. 1950-1952.</b>

---



- 
- Box 34, Folder 1-6 **Memorandums, programs, and clippings regarding UC Riverside construction, CES faculty and research, pest control, smog tests, and citrus fruit recipes. 1952-1953.**
- Box 35, Folder 1-6 **Memorandums, programs, and clippings regarding UC Riverside construction, events, students and faculty, CES research, and citrus fruit recipes. 1953-1954.**
- Box 36, Folder 1-3 **Memorandums, programs, calendars, and clippings regarding UC Riverside faculty, students, and events, CES research, and citrus fruit recipes. 1954.**
- Box 39 **Clippings regarding the establishment of UC Riverside as a university, and CES research and faculty. 1947-1953.**

Series 6. **Press clippings. 1899-1985, undated.**

**Series Scope and Content Summary**

This series is comprised of press clippings from *The Press-Enterprise*, *Riverside Daily Press*, and other local newspapers. Topics include citrus and avocado industries and production, the history of the Washington Navel Orange, Citrus Experiment Station (CES) research in diseases, pest control, and smog studies, and information about CES faculty, facilities, and events. Clippings regarding the establishment of the College of Arts and Sciences at UC Riverside are also included.

**Series Arrangement**

This series is arranged sequentially by box and folder number.

- Box 36,  
Folder 4-16 **Clippings from *The Press-Enterprise*, *Riverside Daily Press*, and other local newspapers regarding developments in the citrus and avocado industries, pest control, smog studies, and UC Riverside and CES faculty, events and research. 1904-1956.**
- Box 37,  
Folder 1-30 **Clippings from *The Press-Enterprise*, *Riverside Daily Press*, and other local newspapers regarding developments in the citrus and avocado industries, pest control, smog studies, and UC Riverside and CES faculty, events and research. 1956-1958.**
- Box 38,  
Folder 1-26 **Clippings from *The Press-Enterprise*, *Riverside Daily Press*, and other local newspapers regarding developments in the citrus and avocado industries, pest control, smog studies, and UC Riverside and CES faculty, events and research. 1959-1989, undated.**
- Box 40 **Clippings regarding the history of navel oranges and the citrus industry (oversize). 1899-1936.**

Series 7. **Project files. 1907-1967.**

**Series Scope and Content Summary**

This series contains project files regarding research and experiments conducted by Citrus Experiment Station (CES) faculty, staff, and associated members. Topics include plant physiology and anatomy, pest control, citrus diseases, soil management, studies involving citrus, walnuts, figs, avocados, and other plants, and other research related to citrus and subtropical agriculture. Project files are labeled by two separate notation systems: CES project number and project number.

**Series Arrangement**

This series is arranged by project file in ascending order according to project number or CES project number when applicable.

- shelf Unboxed **CES Project No. 1 entitled *A Study of the Fertilizer Requirements of Citrus Fruits* conducted by H. J. Webber, W. Mertz, and other staff. Includes photographs. April 1907-July 1934.**
- shelf Unboxed **CES Project No. 2 entitled *Green Manure Crops for Southern California with Special Reference to Their Use in Citrus Orchards* conducted by J.H. Norton and W.M. Mertz. September 1909-June 1932.**
- shelf Unboxed **CES Project No. 3-A entitled *The Effect of Different Stocks on Commercial Species and Varieties of Citrus* conducted by W. W. Bonns, W.M. Mertz, H.J. Webber, and F.F. Halma. April 1907-June 1937.**

**Note**

Please consult CES Project No. 64 for related material.

- shelf Unboxed **CES Project No. 3-B entitled *Field Survey of Stocks and Their Reactions* conducted by H.J. Webber and F.F. Halma. May 1926-January 15, 1937.**
- shelf Unboxed **CES Project No. 3-C entitled *Citrus Rootstock Experiments, Studies on Seedling Progenies from Different Promising Trees and Their Reactions* conducted by H.J. Webber, L.D. Batchelor, W.P. Bitters, and other staff. August 1926-December 1963.**
- Note**  
Project title revised to *Influence of Various Rootstocks on the Growth, Yield, and Quality of Fruit of Various Citrus Varieties* in April 1940.
- shelf Unboxed **Unpublished report from CES Project No. 3C entitled *Soil Temperature Effects on the Vegetative Growth Concentration and Total Absorption of Minerals in Citrus Seedling Rootstock Species* by C.K. Labanauskas, D.R. Rodney, Walter Reuther, and T.W. Embelton. 1958.**
- shelf Unboxed **CES Project No. 3-D entitled *Experiments with Citrus Varieties Propagated Upon Their Own Roots* conducted by H.J. Webber and F.F. Halma. August 19, 1926-April 27, 1937.**
- shelf Unboxed **CES Project No. 3-E entitled *Comparative test of Rootstocks and Buds from High and Low Yielding Trees to Obtain Evidence of the Extent of the Influence of the Stock on the Factor of Yield and Also to Discover Stocks Tending to Produce High Yield* conducted by F.F. Halma, R.E. Caryl, and M.B. Rounds. September 1926-April 1940.**
- shelf Unboxed **CES Project No. 3-F entitled *Physiological and Anatomical Studies on Bud and Graft Unions* conducted by H.J. Webber and F.F. Halma. January 1929-June 1936.**
- shelf Unboxed **CES Project No. 3-G entitled *Studies of Means of Identifying by Root Characters the Different Kinds of Stocks Used* conducted by H.J. Webber and F.F. Halma. September 1926-June 1936.**
- shelf Unboxed **CES Project No. 3-H entitled *Studies and Experiments on the Recovery of Trees Injured by Propagation on Uncongenial Stocks* conducted by F.F. Halma. August 1926-April 1927.**
- shelf Unboxed **CES Project No. 3-J entitled *A Study of the Effect of Building Lemon Trees of Different Heights Above the Ground* conducted by R.E. Caryl, M.B. Rounds, and L.D. Batchelor. March 1936-January 1948.**
- shelf Unboxed **CES Project No. 4 entitled *A Study of the Varieties of Citrus Fruits and Their Relatives* conducted by H.J. Webber, W.M. Mertz, H.B. Frost, W.P. Bitters, and other staff. February 1, 1913-December 1961.**
- Note**  
Please consult Project No. 1984 for related material.
- shelf Unboxed **CES Project No. 5 entitled *A Comparative Efficiency Test of Orchard Heating Devices* conducted by W.W. Bonns and W.M. Mertz in cooperation with Dr. L.J. Briggs and J.W. McLane of the USDA. December 1, 1913-April 1914.**
- shelf Unboxed **CES Project No. 6 entitled *the Histology of Citrus* conducted by W.W. Bonns. April 1914.**
- shelf Unboxed **CES Project No. 7 entitled *Study of the Comparative Infectiousness of Crown Gall Organism (*Bacterium tumefaciens*) with Special Reference to Finding Resistant Forms of Prunus Suitable as a Rootstock for the Various Stone Fruits* conducted by C.O. Smith. Includes photographs. March 1910-March 1944.**
- shelf Unboxed **CES Project No. 8 entitled *Lemon Decay Fungi, with Special Reference to Their Control by Wash Water Disinfection* conducted by C.O. Smith and E.E. Thomas. Includes photographs. April 1911-May 1916.**
- shelf Unboxed **CES Project No. 9 entitled *Black Pit of Lemons, a Bacterial Spot* conducted by C.O. Smith. May 1912- July 1913.**
-

---

shelf Unboxed	<p><b>CES Project No. 10</b> entitled <i>Investigations as to the Causes, Manner of Development, and Treatment of Gum Diseases of Citrus and Other Fruit Trees</i> conducted by H.S. Fawcett, L.J. Klotz, T.A. Wolfe, and other staff. Includes photographs. February 1912-December 1963.</p> <p style="padding-left: 40px;"><b>Note</b></p> <p style="padding-left: 40px;">Project title revised to <i>Investigation of Citrus Diseases Not Included in Other Pathology Projects, with Special Regard to Brown Rot, Gummosis, Gumming of Trees in the Desert Area</i> in June 1937, and <i>Root Rot and Phytophthora-induced Diseases of the Citrus Tree</i> in November 1957. Please consult CES Project Nos. 21, 141, and 131, and Project Nos. 1377, 1383, and 1544 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 11</b> entitled <i>Investigations as to the Cause and Treatment of Melaxuma of the English Walnut</i> conducted by H.S. Fawcett. June 1913-November 1916.</p>
shelf Unboxed	<p><b>CES Project No. 12</b> entitled <i>Routine Examination of Material Sent to the Citrus Experiment Station and Minor Studies in Bacteriology, Mycology, Pathology, and Virology</i> conducted by J.T. Barrett, C.O. Smith, H.S. Fawcett, L.J. Klotz and other staff. Includes photographs. 1909-January 1962.</p>
shelf Unboxed	<p><b>CES Project No. 13</b> entitled <i>Some Studies on Mottling of Citrus Trees</i> conducted by J.T. Barrett. April 1914.</p>
shelf Unboxed	<p><b>CES Project No. 14</b> entitled <i>Heart Rot of Citrus as a Result of the Freeze</i> conducted by J.T. Barrett. November 1913-November 1916.</p>
shelf Unboxed	<p><b>CES Project No. 15</b> entitled <i>Root Diseases of Citrus Trees</i> conducted by J.T. Barrett and H.S. Fawcett. April 1914-June 1937.</p>
shelf Unboxed	<p><b>CES Project No. 15-A</b> entitled <i>A Study of Root Diseases of Citrus Trees</i> conducted by H.S. Fawcett, M.R. Huberty, and other staff. June 1932-March 1944.</p>
shelf Unboxed	<p><b>CES Project No. 15-B</b> entitled <i>Armillaria Root Rot Studies</i> conducted by H.S. Fawcett, D.E. Bliss, and other staff. June 1938-January 1962.</p>
shelf Unboxed	<p><b>CES Project No. 16</b> entitled <i>Fruit Spots and Stains. Green Spot, Brown Spot, and Stains</i> conducted by J.T. Barrett, O.F. Burger, and other staff. December 1913-June 1921.</p>
shelf Unboxed	<p><b>CES Project No. 17</b> entitled <i>A Study of the Horticultural Conditions in Florida, Cuba, and the Isle of Pines with Special Reference to Citrus Culture</i> conducted by H.S. Fawcett. January 5, 1914-November 2, 1916.</p>
shelf Unboxed	<p><b>CES Project No. 18</b> entitled <i>The Nematode Problem on Citrus Trees</i> conducted by E.E. Thomas. Includes photographs. December 1912-May 28, 1919.</p>
shelf Unboxed	<p><b>CES Project No. 19</b> entitled <i>A Study of Enzymes in Connection with Plant Diseases</i> conducted by H.D. Young. October 1912-November 29, 1913.</p>
shelf Unboxed	<p><b>CES Project No. 20</b> entitled <i>A Study of the Relative Influence of Different Factors on the Composition of Certain Fruits and Nuts</i> conducted by H.D. Young. January 1913-May 27, 1918.</p>
shelf Unboxed	<p><b>CES Project No. 21</b> entitled <i>Breeding and Improvement of Citrus Fruit</i> conducted by H.J. Webber, H.B. Frost, R.K. Soost, and other staff in cooperation with A.D. Shamel of the USDA. July 1914-December 1961.</p> <p style="padding-left: 40px;"><b>Note</b></p> <p style="padding-left: 40px;">Project title revised to <i>Genetic Investigation of Citrus and Breeding to Produce Superior Varieties</i> in June 1931 and <i>Genetics and Nucellar Embryony in Citrus and Breeding to Produce New Varieties</i> in March 1952. Please consult CES Project Nos. 10, 131, and 141, and Project Nos. 1377, 1383, and 1544 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 22</b> entitled <i>The Principles of Heredity in Certain Plants</i> conducted by H.B. Frost. October 1, 1913-June 1924, March 1943.</p> <p style="padding-left: 40px;"><b>Note</b></p> <p style="padding-left: 40px;">Please consult CES Project No. 57 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 23</b> entitled <i>The Origin, Nature, and Inheritance of Apparent Mutations in Certain Plants</i> conducted by H.B. Frost. October 1913-April 10, 1945.</p>

---

---

shelf Unboxed	<b>CES Project No. 24 entitled <i>The Comparative Value of Various Paints, Waxes, and Antiseptic Washes as Treatments for Wounds on Citrus Trees</i> conducted by W.M. Mertz. April 26, 1913-August 1916.</b>
shelf Unboxed	<b>CES Project No. 25 entitled <i>Citrus Survey</i> conducted by C.S. Milliken, A.R. Tylor, and R.S. Vaile. April 6, 1914-September 8, 1923.</b>
shelf Unboxed	<b>CES Project No. 26 entitled <i>A Study of the Freeze of January 1913</i> conducted by H.J. Webber, C.S. Milliken, A.R. Tylor, and other staff. January 20, 1913-March 15, 1922.</b>
	<b>Note</b> Please consult CES Project No. 61 for related material.
shelf Unboxed	<b>College of Agriculture Project No. 304 entitled <i>A Study of the Conditions Under Which Citrus Fruits are Produced in Northern California</i> conducted by J. Eliot Coit and C.C. Way. July 1914.</b>
shelf Unboxed	<b>CES Project No. 27 entitled <i>Observations and Studies on Internal Decline of Lemons</i> conducted by J.T. Barrett, H.S. Fawcett, and E.T. Bartholomew. Includes photographs. January 1915-June 1936.</b>
shelf Unboxed	<b>CES Project No. 28 entitled <i>A Study of the Fumigation Process With Special Reference to the Chemical Problems Involved</i> conducted by H.J. Quayle, H.D. Young, and A.R. Tylor. September 1914-January 16, 1937.</b>
	<b>Note</b> Please consult CES Project Nos. 118-121 for related material.
shelf Unboxed	<b>CES Project No. 29 entitled <i>A Study of the Chemical and Physical Effects of Nitrate of soda in Citrus Soils</i> conducted by E.E. Thomas and S.M. Brown. December 1922-June 1932.</b>
	<b>Note</b> Pages 1-247 of this report are not included.
shelf Unboxed	<b>CES Project No. 30 entitled <i>Spraying for Insect Pests on Citrus and Olive Trees</i> conducted by H.J. Quayle, A.R. Tylor, and C.P. Clausen. May 1, 1914-April 1917.</b>
shelf Unboxed	<b>CES Project No. 31 entitled <i>The Mealybugs of Southern California</i> conducted by C.P. Clausen. May 1, 1914-April 11, 1917.</b>
shelf Unboxed	<b>CES Project No. 32 entitled <i>Survey of Situation of the Citrus Products and By-Products Industries in Southern California</i> conducted by C.S. Milliken and R.S. Vaile. September 1914.</b>
shelf Unboxed	<b>CES Project No. 33 entitled <i>A Comparative Study of Coccus citricola Campb. and Coccus hesperidum Linn.</i> conducted by H.J. Quayle. January 1, 1915-April 11, 1917.</b>
shelf Unboxed	<b>CES Project No. 34 entitled <i>A Study of the Life History and Economics of the Scale and Aphid Feeding Coccinellids</i> conducted by C.P. Clausen. March 1, 1915-May 25, 1916.</b>
shelf Unboxed	<b>CES Project No. 35 entitled <i>Study of Cost Accounting For Citrus Orchards with a View to Determining as Far as Possible the Actual Value of Cultural Practices</i> conducted by R.S. Vaile and C.S. Milliken. February 3, 1915-August 23, 1923.</b>
shelf Unboxed	<b>CES Project No. 36 entitled <i>The Dispersion of Scale Insects by Wind</i> conducted by H.J. Quayle and A.R. Tylor. June 1915-April 11, 1917.</b>
shelf Unboxed	<b>CES Project No. 37 entitled <i>Injection of Cyanide Salts in Citrus Trees for the Control of Scale Insects and of Blackleaf 40% in Walnut Trees for the Control of the Walnut Aphids</i> conducted by H.J. Quayle and A.R. Tylor. February 1, 1915-May 25, 1916.</b>
shelf Unboxed	<b>CES Project No. 38 entitled <i>The Use of the Fungus Isaria in Controlling the Black Scale</i> conducted by H.J. Quayle and A.R. Tylor. January 1, 1915-May 25, 1916.</b>
shelf Unboxed	<b>CES Project No. 39 entitled <i>Experiment in the Management of Old Groves</i> conducted by H.J. Webber, W.M. Mertz, W.P. Kelley, and other staff. March 1915-February 26, 1923.</b>

---

---

shelf Unboxed	<p><b>CES Project No. 40</b> entitled <i>Experiment in Walnut Breeding Investigations</i> conducted by L.D. Batchelor, R.G La Rue, and O.L. Braucher. Includes photographs. Fall 1915-January 16, 1937.</p> <p>Note</p> <p>Please consult CES Project No. 96 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 41</b> entitled <i>Walnut Rootstock Investigations</i> conducted by L.D. Batchelor. Fall 1915-June 30, 1936.</p>
shelf Unboxed	<p><b>CES Project No. 42</b> entitled <i>A Study of Ammonification and Nitrification in the Soils of Southern California with Special Reference to the Fertilizer Plats of the Citrus Experiment Station</i> conducted by W.P. Kelley. January 1915- May 28, 1919.</p>
shelf Unboxed	<p><b>CES Project No. 43</b> entitled <i>A Physiological Study of the Effect of Pruning Upon the Growth and Productiveness of Citrus Trees and Other Horticultural Plants Grown Under Irrigation in Arid Regions in Southern California</i> conducted by H.S. Reed, F.F. Halma, and R. McBride. September 1915-June 27, 1935.</p>
shelf Unboxed	<p><b>CES Project No. 44</b> entitled <i>The Control of Lemon Decay Fungi by Wash Water Disinfection</i> conducted by E.E. Thomas. December 8, 1915-February 25, 1916.</p>
shelf Unboxed	<p><b>CES Project No. 45</b> entitled <i>Walnut Blight- Investigation for Control</i> conducted by H.S. Fawcett, C.O. Smith, and L.D. Batchelor. Includes photographs. November 1, 1915-November 6, 1922.</p>
shelf Unboxed	<p><b>CES Project No. 46</b> entitled <i>Fixation of Nitrogen and Nitrification of Legumes</i> conducted by W.P. Kelley and H.D. Young. September 1915-May 15, 1918.</p>
shelf Unboxed	<p><b>CES Project No. 47</b> entitled <i>Sunburning and Winter Killing of Walnut Trees</i> conducted by L.D. Batchelor, H.S. Reed, and R.S. Vaile. Includes photographs. April 1916-September 29, 1924.</p>
shelf Unboxed	<p><b>CES Project No. 48</b> entitled <i>Cover Crop Breeding</i> conducted by L.D. Batchelor. September 1916-June 13, 1918.</p>
shelf Unboxed	<p><b>CES Project No. 49</b> entitled <i>Studies in Soil Moisture</i> conducted by E.E. Thomas. May 1916-May 28, 1919.</p>
shelf Unboxed	<p><b>CES Project No. 50</b> entitled <i>A Synopsis of the Aphididae of California</i> conducted by A.F. Swain and H.J. Quayle. September 1, 1916-April 30, 1918.</p>
shelf Unboxed	<p><b>CES Project No. 51</b> entitled <i>The Fruit Bark Beetle</i> conducted by H.J. Quayle and A.F. Swain. November 1916-April 29, 1919.</p>
shelf Unboxed	<p><b>CES Project No. 52</b> entitled <i>Field Trials of Fertilizers and Green Manure Crops with Walnuts</i> conducted by R.S. Vaile, L.D. Batchelor, and W.E. Goodspeed. July 1917-February 24, 1926.</p> <p>Note</p> <p>Please consult CES Project No. 151 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 52-B</b> entitled <i>Walnut Soil Management Experiment Cogswell Grove, El Monte Plot B</i> conducted by R.S. Vaile and LD. Batchelor. July 31, 1917-June 1923.</p>
shelf Unboxed	<p><b>CES Project No. 52-C</b> entitled <i>Limoneira Walnut Fertilizer Experiments</i> conducted by L.D. Batchelor and R.G. La Rue. February 26, 1919-March 7, 1927.</p>
shelf Unboxed	<p><b>CES Project No. 53</b> entitled <i>Control of the Citrophilus Mealybug</i> conducted by H.J. Quayle, A.F. Swain, and C.R. Perrin. May 1, 1917-April 30, 1918.</p>
shelf Unboxed	<p><b>CES Project No. 54</b> entitled <i>Commercial Growing and Breeding of Sugar Beet Seed in California</i> conducted by H.J. Webber. February 1918-February 9, 1920.</p>
shelf Unboxed	<p><b>CES Project No. 55</b> entitled <i>The Codling Moth in Walnuts</i> conducted by H.J. Quayle and H. Knight. September 1, 1918-June 28, 1922.</p>
shelf Unboxed	<p><b>CES Project No. 56</b> entitled <i>A Study of Apricot Bacterial Gummosis and its Control</i> conducted by J.T. Barrett. April 1916-June 11, 1923.</p>
shelf Unboxed	<p><b>CES Project No. 57</b> entitled <i>Bean Breeding for Interior Dry Land Conditions in California</i> conducted by H.B. Frost. February 13, 1919-June 21, 1923.</p> <p>Note</p> <p>Please consult CES Project No. 22 for related material.</p>

---

---

**CES Project No. 58 entitled *Conference of Growers to Discuss Fertilizer Experiments* reported by H.J. Webber. September 10, 1926-November 20, 1917.**

**Note**

Only pages 1178-1188 of this report are available. Please consult Project Nos. 1630-1632 for related material.

shelf Unboxed

**CES Project No. 59 entitled *Citrus Blast* conducted by W.T. Horne, H.S. Fawcett, and C.O. Smith. Includes photographs. October 1919-June 1936.**

shelf Unboxed

**CES Project No. 60 entitled *The Control of the Orange Tortrix* conducted by H.J. Quayle. March 12, 1920-June 30, 1922.**

shelf Unboxed

**CES Project No. 61 entitled *Cooperative Field Trials of Fertilizers and Green Manure Crops with Citrus Trees* conducted by R.S. Vaile and J.G. Surr. December 1919.**

**Note**

Please consult CES Project No. 26 for related material.

shelf Unboxed

**CES Project No. 61-A regarding fertilizer experiments conducted by R.S. Vaile and G. Surr at a tract in Naranjo, California. April 1919-December 1923.**

shelf Unboxed

**CES Project No. 61-B regarding fertilizer experiments conducted by R.S. Vaile, L.D. Batchelor, and E.R. Parker at the Chaffey Union High School and Chaffey Grove plots. February 1920-September 1925.**

shelf Unboxed

**CES Project No. 61-C regarding fertilizer experiments conducted by R.S. Vaile at the San Diego Land Corporation. August 1919-August 1920.**

shelf Unboxed

**CES Project No. 61-D regarding fertilizer experiments conducted by R.S. Vaile, H.J. Webber, and G. Surr on Fontana Ranch. June 1917-March 1921.**

shelf Unboxed

**CES Project No. 61-E regarding field trials conducted by R.S. Vaile on the Fontana Land Company grove. March 1912-March 1921.**

shelf Unboxed

**CES Project No. 61-F regarding fertilizer and irrigation experiments conducted by R.S. Vaile, G. Surr, and L.D. Batchelor at the Ball-Emery Citrus Groves Company near Porterville, California. October 1919-January 1925.**

shelf Unboxed

**CES Project No. 61-G regarding fertilizer experiments conducted by R.S. Vaile, L.D. Batchelor, and G. Surr at the Kaweah Lemon Company Lemon Cove plots. January 1920-January 1925.**

shelf Unboxed

**CES Project No. 61-I regarding fertilizer experiments conducted by R.S. Vaile at the Emery-Magnolia grove. March 1921-June 1921.**

shelf Unboxed

**CES Project No. 62 entitled *Walnut Irrigation, Harvesting, and Curing Trial in its Relation to Moldy Walnut Kernels* conducted by L.D. Batchelor and J.T. Barrett. January 1920-September 1924.**

shelf Unboxed

**CES Project No. 62-B entitled *Walnut Curing Investigations* conducted by L.D. Batchelor and A.W. Christie. September 1922-December 30, 1926.**

shelf Unboxed

**CES Project No. 63 entitled *Reclamation of Alkali Lands. A Study of the Physical Effects Produced on Soils by Soluble Salts* conducted by W.P. Kelley, B.M. Laurence, E.E Thomas, S.M. Brown and other staff. June 1920-June 1938.**

**Note**

Pages 301-526 of this report are not included. Please refer to CES Project Nos. 135-137 for related material.

shelf Unboxed

**CES Project No. 64 entitled *The Importance of Selection in the Improvement of Citrus Stocks* conducted by H.J. Webber, R. McBride, L.D. Batchelor, and other staff. June 1917-March 1944.**

**Note**

Please consult CES Project No. 3-A for related material.

shelf Unboxed

**CES Project No. 64-B entitled *The Importance of Selection in the Improvement of Citrus Stocks* conducted by J.T. Barrett, H.J. Webber, L.D. Batchelor, and other staff. June 1923-March 1944.**

---

shelf Unboxed	<b>CES Project No. 64-C entitled <i>Studies on the Cause of Dwarfness and Decline of Citrus Trees on Variant Rootstocks</i> conducted by H.J. Webber, R.E. Caryl, and L.D. Batchelor. October 1935-March 1944.</b>
shelf Unboxed	<b>College of Agriculture Project No. 727 entitled <i>Root Hair Experiments</i> conducted by R.E. Girton. June 1925-June 1926.</b> <b>Note</b> Pages 1-53 of this report are not included.
shelf Unboxed	<b>CES Project No. 65 entitled <i>Miscellaneous Investigations Regarding Beneficial Insects</i> conducted by H.S. Smith, H.M. Armitage, A.J. Basinger, and other staff. July 1923-January 1937.</b> <b>Note</b> Please consult CES Project Nos. 111, 114, and 115 for related material.
shelf Unboxed	<b>CES Project No. 66 entitled <i>Walnut Crown Rot, An Investigation of its Cause and the Factors Influencing its Occurrence</i> conducted by J.T. Barrett, H.S. Fawcett, C.O. Smith, and W.T. Horne. Includes photographs. October 1923-June 1938.</b>
shelf Unboxed	<b>CES Project No. 67 entitled <i>Orange Tortix Investigations</i> conducted by H.S. Smith and A.J. Basinger. August 28, 1923-May 1937.</b> <b>Note</b> Please consult CES Project No. 133 for related material.
shelf Unboxed	<b>CES Project No. 68 entitled <i>A Study of the Effects of Hot Desiccating Winds Upon Citrus Trees in Southern California</i> conducted by E.T. Bartholomew and H.S. Reed. Includes photographs. October 1, 1923-May 1929.</b>
shelf Unboxed	<b>CES Project No. 69 entitled <i>Control of the Grape Leafhopper by the Use of Calcium Cyanide</i> conducted by F.T. Bioletti and H.J. Quayle. March 1923-December 1924.</b>
shelf Unboxed	<b>CES Project No. 70 entitled <i>Control of the Root Knot Nematode by Application of Calcium Cyanide to the Soil</i> conducted by H.J. Quayle and H. Knight. March 1923-December 1924.</b>
shelf Unboxed	<b>CES Project No. 71 entitled <i>The Irrigation of Bearing Walnut Groves</i> conducted by L.D. Batchelor and R.G. LaRue. March 1924-October 1927.</b>
shelf Unboxed	<b>CES Project No. 72 entitled <i>The Effect of Fertilization and Other Cultural Practices Upon the Keeping Qualities of Citrus Fruits</i> conducted by E.R. Parker. January 1925-January 1937.</b>
shelf Unboxed	<b>College of Agriculture Project No. 799 entitled <i>Economic Field Duty of Water in Southern California</i> conducted by S.H. Beckett. July 1925-July 1930.</b> <b>Note</b> Please consult CES Project Nos. 95 and 112 for related material.
shelf Unboxed	<b>CES Project No. 73 entitled <i>Decay and Deterioration of Citrus Fruits</i> conducted by H.S. Fawcett, J.T. Barrett, and other members of the Plant Pathology staff. Includes photographs. July 1926-April 1964.</b> <b>Note</b> Please consult Project No. 1765 for related material.
shelf Unboxed	<b>CES Project No. 74 entitled <i>Biological Control of Codling Moth</i> conducted by H.S. Smith, R.H. Smith, Harold Compere, and P.H. Timberlake. April 1927-March 1944.</b>
shelf Unboxed	<b>CES Project No. 75 entitled <i>A Study of the Anatomy of Citrus Trees with Reference to Pathological and Physiological Problems</i> conducted by E.T. Bartholomew and H.S. Reed. Includes photographs. August 20, 1927-February 1937.</b>
shelf Unboxed	<b>CES Project No. 76 entitled <i>Sprays and Spraying for the Control of Citrus Insect Pests</i> conducted by R.H. Smith. May 1926-January 1937.</b>
shelf Unboxed	<b>CES Project No. 77 entitled <i>A Study of the Codling Moth with Special Relation to the English Walnut</i> conducted by R.H. Smith. February 1927.</b>

---

---

shelf Unboxed	<b>CES Project No. 78 entitled <i>A Study of the Colloidal Constituents of California Soils</i> conducted by W.P. Kelley, H.D. Chapman, and other staff. December 1927-April 1938.</b>
shelf Unboxed	<b>CES Project No. 79 entitled <i>A Study of Boron in Relation to the Growth of Citrus and Walnut Trees, Irrigation Supplies, and the Application of Certain Materials that are Used as Fertilizers</i> conducted by W.P. Kelley and S.M. Brown. December 1927.</b>
shelf Unboxed	<b>CES Project No. 80 entitled <i>An Investigation of Peach Breeding with Special Reference to the Production of Strains Adapted to Subtropical Conditions</i> conducted by J.W. Lesley and other staff. March 1, 1927- January 1954.</b>
shelf Unboxed	<b>Project No. 851 entitled <i>Studies on the Seasonal Fluctuations of Certain Constituents and the Chemical Composition of Subtropical Fruit Trees</i> conducted by S.H. Cameron and D. Appleman. September 1, 1925- June 1937.</b>
shelf Unboxed	<b>CES Project No. 81 entitled <i>Date Fertilizer Trials</i> conducted by L.D. Batchelor and J.G. Surr. June 1928-June 1932.</b>
shelf Unboxed	<b>CES Project No. 82 entitled <i>An Investigation of Susceptibility, Resistance, and Immunity of Plants to Diseases</i> conducted by L.J. Klotz, J.M. Wallace, G.A. Zentmyer, and other staff. December 1, 1928-January 1962.</b>
shelf Unboxed	<b>CES Project No. 83 entitled <i>Morphological, Cytological, and Genetical Studies of the Fig- <i>Ficus carica</i> with Especial Reference to Improvement of Commercial Varieties</i> conducted by I.J. Condit. June 29, 1929-January 1954.</b>
shelf Unboxed	<b>CES Project No. 84 entitled <i>A Study of Flower Development and Behavior of the Factors Affecting Fruit Setting in the Avocado (<i>Persea americana</i> and <i>P. drymfolia</i>)</i> conducted by H. Van Elden and R.W. Hodgson. September 1927-November 1937.</b>
shelf Unboxed	<b>CES Project No. 85 entitled <i>Cultural Studies of the Fig (<i>Ficus carica</i>) in California</i> conducted by I.J. Condit. Includes photographs. February 1928-January 1954.</b>
shelf Unboxed	<b>CES Project No. 86 entitled <i>Studies on the Oriental Persimmon (<i>Diospyrus kaki</i>) in California</i> conducted by R.W. Hodgson. Includes photographs. January 17, 1927-June 1937.</b>
shelf Unboxed	<b>CES Project No. 87 entitled <i>Cultural Studies on the Olive (<i>Olea europae</i>) in California</i> conducted by I.J. Condit. Includes photographs. March 1928-February 1947.</b>
shelf Unboxed	<b>CES Project No. 88 entitled <i>A Study of the Climatic Requirements and Responses of Certain Subtropical Fruits with Special Reference to the Temperature Factor</i> conducted by R.W. Hodgson and students. January 1928-May 1937.</b>
shelf Unboxed	<b>CES Project No. 89 entitled <i>A Horticultural and Botanical Study of Fig Varieties in California</i> conducted by I.J. Condit. Includes photographs. June 3, 1927-February 14, 1957.</b>
shelf Unboxed	<b>CES Project No. 90 entitled <i>Investigation of Diseases of Palms Principally Those of the Date Palm</i> conducted by H.S. Fawcett, L.J. Klotz, D.E. Bliss, and other staff. November 1929-January 1963.</b>
shelf Unboxed	<b>CES Project No. 91 entitled <i>An Investigation of Phosphate in the Soils of Southern California with Special Reference to the Phosphate Fertilization of Citrus Trees</i> conducted by H.D. Chapman. July 1929-March 1944.</b>
	<b>Note</b>
	Please consult CES Project No. 152 and Project No. 1373 for related material.
shelf Unboxed	<b>CES Project No. 92 entitled <i>Tomato Breeding Especially for Resistance to Disease and Improved Quality of Fruit Under the Conditions of Southern California</i> conducted by J.W. Lesley, R.K. Soost, and other staff. July 1, 1922-January 1958.</b>
shelf Unboxed	<b>CES Project No. 93 entitled <i>A Study of the Physiological Effects of the External Application of Petroleum and Other Oils Upon Plants and of the Subsequent Chemical Changes in These Oils Within the Plant</i> conducted by E.T. Bartholomew, P.W. Rohrbaugh, and R.H. Smith. September 1, 1928-February 1937.</b>
shelf Unboxed	<b>CES Project No. 94 entitled <i>Cantaloupe Powdery Mildew</i> conducted by P.A. Miller. January 1931-June 30, 1935.</b>

---



- 
- shelf Unboxed **CES Project No. 95 entitled *Orchard Irrigation Studies in Southern California* conducted by S.H. Beckett, F.F. Halm, O.C. Compton, and other staff. April 1931-April 1939.**
- Note**  
Please consult CES Project No. 112 and Project No. 799 for related material.
- shelf Unboxed **CES Project No. 95-A entitled *Irrigation Investigation in Coachella and Imperial Valleys* conducted by Frank Adams and Arthur Pillsbury. January 1932-February 1937.**
- shelf Unboxed **CES Project No. 95-D entitled *Effect of Different Irrigation Treatments on the Growth of Young Navel Orange Trees* conducted by M.R. Huberty, O.C. Compton, W.E. Picker, and other staff. March 1933-January 1959.**
- shelf Unboxed **CES Project No. 96 entitled *Study of Miscellaneous Species of Nuts with Special Reference to the Value of Filberts, Chestnuts, and Pecans as Commercial Crops in California* conducted by R.G. LaRue and O.L. Braucher. 1930-March 1944.**
- Note**  
Please consult CES Project No. 40 for related material.
- shelf Unboxed **CES Project No. 97 entitled *Investigation of the Physiochemical Properties of Spray Oils and Oil Spray Mixtures with Regard to Their Functioning as Insecticides* conducted by R.H. Smith. August 1931-January 1937.**
- Note**  
Please consult CES Project Nos. 122-125 and 164 for related material.
- shelf Unboxed **CES Project No. 98 entitled *Control of the Walnut Husk Fly, *Rhagoletis completa* (Cress.)* conducted by A. M. Boyce. August 1931-March 1953.**
- Note**  
Please consult Project No. 1419 for related material.
- shelf Unboxed **CES Project No. 99 entitled *A Study of the More Important Diseases of the Avocado in California with Especial Reference to the Control of Which are of Greatest Economic Importance* conducted by W.T. Horne, H.S. Fawcett, G.A. Zentmyer, and other staff. Includes photographs. 1926-January 5, 1959.**
- Note**  
Project title revised to *Diseases of the Avocado* in February 1949 and *Diseases of Avocado and Other Subtropical Fruits* in March 1951.
- shelf Unboxed **CES Project No. 100 entitled *The Avocado Sun-blotch Disease* conducted by W.T. Horne, E.R. Parker, J.M. Wallace, and other staff. Summer 1928-October 17, 1963.**
- shelf Unboxed **CES Project No. 101 entitled *Studies on the Nature of the Resistance and the Effect of Insecticides on the Strain of Red Scale That has Developed an Increased Tolerance to Hydrocyanic Acid* conducted by H.J. Quayle, R.H. Smith, Walter Ebeling, and other staff. February 1931-January 18, 1937.**
- shelf Unboxed **CES Project No. 102 entitled *A Study of the Biology and Control of Insects Attacking the Avocado* conducted by H.J. Quayle and H.L. McKenzie. June 1931-May 22, 1936.**
- shelf Unboxed **CES Project No. 103 entitled *Efficacy of Synthetic Cryolite, Barium Fluosilicate, Nicotine Tannate, Magnesium Arsenate, and Basic Lead Arsenate in Controlling the Codling Moth in Walnuts with Special Reference to the Relationship of Various Spreaders and Stickers in Combination with the Latter Material and Improved Methods of Applying the Various Materials Both as Sprays and Dusts* conducted by A.M. Boyce. May 1932-March 2, 1953.**
- Note**  
Project title also referred to as *Control of the Codling Moth, *Carpocapsa pomonella* (Linn.) on Persian Walnuts Through the Use of Finer Particle Size Cryolite and Barium Fluosilicate that has Recently Become Available as a Substitute for Basic-Lead Arsenate*. Please consult Project No. 1419 for related material.
-

- shelf Unboxed **CES Project No. 104 entitled *Biochemical Investigation of Citrus Fruits in Relation to Applications of Petroleum Oils and Other Chemical Agents* conducted by W.B. Sinclair and E.T. Bartholomew. January 1934-June 1938.**
- shelf Unboxed **CES Project No. 105 entitled *A Study of Nitrogen Gains, Losses, and Transformations in California Soils and the Nitrogen Requirements of Citrus and Other Subtropical Fruits* conducted by H.D. Chapman, E.E. Thomas, W.P. Kelley, and other staff. June 29, 1934-March 15, 1954.**
- Note**  
Project title also referred to as *Lysimeter Investigations of the Gains, Losses, and Transformation of Mineral Elements in Irrigated Soils*.
- shelf Unboxed **CES Project No. 106 entitled *Studies on the Influence of Biotic Factors on Population Densities of Insects* conducted by H.S. Smith, S.E. Flanders, Paul DeBach, and other staff. Includes photographs. June 1, 1934-February 1, 1953.**
- Note**  
Project title revised to *Technical Studies in the Development of Methods for Evaluation of Environmental Factors in Relation to Population Densities of Insects* in March 1948.
- shelf Unboxed **CES Project No. 107 entitled *Study of Ecology and Control of the Citrus Red Spider* conducted by A.M. Boyce. September 1933-January 18, 1937.**
- Note**  
Project title revised to *Study of Ecology and Control of the Citrus Red Mite* in July 1935. Please consult CES project Nos. 126 and 127 for related material.
- shelf Unboxed **CES Project No. 108 entitled *Investigation of the Control of Gladiolus Thrips* conducted by H.J. Quayle and H.L. McKenzie. May 1934-May 27, 1936.**
- shelf Unboxed **CES Project No. 109 entitled *Investigation of Peach Mosaic Disease with Special Reference to Its Transmission and Spread in California* conducted by H.S. Fawcett, H.S. Reed, H.H. Thornberry, and other staff. Includes photographs. June 6, 1934-November 1965.**
- Note**  
Project titled revised to *Investigations of Peach Mosaic and Other Virus Diseases of Stone Fruits in California* in December 1957.
- shelf Unboxed **CES Project No. 110 entitled *Investigations on Zinc in Relation to the Growth of Citrus and Walnuts* conducted by H.D. Chapman, B.M. Laurance, W.P. Kelley, and other staff. June 6, 1936-December 1958.**
- Note**  
Project title revised to *The Growth of Citrus and Other Crops as Affected by Minor Elements* in August 1950.
- shelf Unboxed **CES Project No. 110-C entitled *The Effect of Varying Root Temperatures on Nutrient Absorption by Citrus* conducted by G.F. Liebig and H.D. Chapman. September 1958-November 1965.**
- shelf Unboxed **CES Project No. 110-D entitled *Field Studies on Micronutrient Nutrition and Fertilization of Citrus* conducted by C.K. Labanauskas, T.W. Embleton, and W.W. Jones. January 7, 1959-January 1962.**
- shelf Unboxed **CES Project No. 111 entitled *Biological Control of Scale Insects Injurious to Citrus in California* conducted by H.S. Smith, Harold Compere, S.E. Flanders, and A.J. Basinger. April 15, 1936-July 1947.**
- Note**  
Please consult CES Project Nos. 65, 114, and 115 for related material.
-

- 
- shelf Unboxed      **CES Project No. 112 entitled *A Study of the Causes of Granulation of Valencia Orange Fruits* conducted by E.T. Bartholomew and W.B. Sinclair. 1927-February 17, 1947.**  
    **Note**  
    Please consult CES Project No. 95 and Project No. 799 for related material.
- shelf Unboxed      **CES Project No. 113 entitled *A Study of the Physiological Effect of Hydrocyanic Acid on Citrus Tissues* conducted by E.T. Bartholomew, W.B. Sinclair, and D.L. Lindgren. May 8, 1936-March 1945.**
- shelf Unboxed      **CES Project No. 114 entitled *Biology and Economic Significance of the Invertebrate Enemies of the Citrus Mite, Paratetranychus citri McG.* conducted by Lawrence Jones and H.S. Smith. April 15, 1936-April 20,1940.**  
    **Note**  
    Please consult CES Project Nos. 65, 111, and 115 for related material.
- shelf Unboxed      **CES Project No. 115 entitled *Biological Control of Miscellaneous Insect Pests in California* conducted by H.S. Smith, Harold Compere, S.E. Flanders, A.J. Basinger, and other staff. April 15, 1936-February 1, 1952.**  
    **Note**  
    Please consult CES Project Nos. 65, 111, and 114 for related material.
- shelf Unboxed      **CES Project No. 117 entitled *Vegetative Propagation Studies with Subtropical Fruit Plants* conducted by E.R. Eggers and F.F. Halma. July 1, 1935-June 30, 1937.**
- shelf Unboxed      **CES Project No. 118 entitled *Fumigation with Hydrocyanic Acid and Carbon Disulphide in Relation to Temperature and Humidity with Reference to Both the Insect and the Plant* conducted by H.J. Quayle, D.L. Lindgren, and F.G. McCarty. April 30, 1936-June 30, 1937.**  
    **Note**  
    Please consult CES Project Nos. 28 and 119-121 for related material.
- shelf Unboxed      **CES Project No. 119 entitled *Atmospheric HCN Fumigation for Latania Scale on Avocado Fruits* conducted by D.L. Lindgren, H.L. McKenzie, and H.J. Quayle. April 30, 1936-June 30, 1937.**  
    **Note**  
    Please consult CES Project nos. 28, 118, 120, and 121 for related material.
- shelf Unboxed      **CES Project No. 120 entitled *Hydrocyanic Acid Gas Concentration Under Fumigation Tents* conducted by H.J. Quayle, D.L. Lindgren, and F.G. McCarty. April 30, 1936-June 30, 1937.**  
    **Note**  
    Please consult CES Project Nos. 28, 118, 119, and 121 for related material.
- shelf Unboxed      **CES Project No. 121 entitled *Types of Concentration Curves as Influencing the Kill of California Red Scale* conducted by D.L. Lindgren, F.G. McCarty, and H.J. Quayle. March 1936-July 10, 1941.**  
    **Note**  
    Please consult CES Project Nos. 28 and 118-120 for related material.
- shelf Unboxed      **CES Project No. 122 entitled *Investigation of Petroleum Oil Sprays with Special Reference to the Amount of Oil Deposited by Various Emulsifying, Wetting, and Spreading Agents, and with Different Grades of Heaviness and of Different Concentration of Oil* conducted by A.M. Boyce, W.Ebeling, J.P. LaDue, and H.J. Quayle. May 5, 1936-March 18, 1944.**  
    **Note**  
    Please consult CES Project Nos. 97, 123-125, and 164 for related material.
-

---

shelf Unboxed	<p><b>CES Project No. 123</b> entitled <i>The Effect of Oil Sprays on Red Scale at Various Stages of Development</i> conducted by Walter Ebeling and H.J. Quayle. April 27, 1936-June 30, 1937.</p> <p><b>Note</b> Please consult CES Project Nos. 97, 122, 124-125, and 164 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 124</b> entitled <i>A Comparison of Fumigation and Spraying in Reference to the Quantity and Quality of Oranges and Lemons</i> conducted by Walter Ebeling and H.J. Quayle. April 27, 1936-March 8, 1943.</p> <p><b>Note</b> Please consult CES Project Nos. 97, 122-123, 125, and 164 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 125</b> entitled <i>The Addition of Paraffin Wax Emulsions to Oil Sprays to Increase the Insecticidal Efficiency of the Latter</i> conducted by Walter Ebeling, H.J. Quayle, and J.P. LaDue. April 27, 1936-January 16, 1948.</p> <p><b>Note</b> Please consult CES Project Nos. 97, 122-124, and 164 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 126</b> entitled <i>A Bio-ecological Study of the Citrus Red Mite, Paratetranychus citri McG. from the Laboratory Standpoint with the Air Conditioning Equipment and from the Field Standpoint by an Intensive Study of Key Field Plots in Different Environmental Localities Fully Equipped with Climatological Apparatus</i> conducted by A.M. Boyce, D. Prendergast, and H.J. Quayle. May 4, 1936-April 21, 1939.</p> <p><b>Note</b> Please consult CES Project Nos. 107 and 127 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 127</b> entitled <i>A Laboratory and Field Study of the Control of the Citrus Red Mite, Paratetranychus citri McG.</i> conducted by A.M. Boyce, D. Prendergast, H.J. Quayle, L.R. Jeppson, and other staff. May 11, 1936-December 20, 1962.</p> <p><b>Note</b> Project title revised to <i>Biology and Control of the Citrus Red Mite and Other Species of Tetranychid and Related Mites Attacking Citrus</i> in August 1948. Please consult CES Project Nos. 107 and 126 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 128</b> entitled <i>Collection of Economic Insects of Southern California</i> conducted by H.L. McKenzie and H.J. Quayle. April 27, 1936-June 30, 1937.</p>
shelf Unboxed	<p><b>CES Project No. 129</b> entitled <i>A Systematic Study of the Genus Chrysomphalus</i> conducted by H.L. McKenzie and H.J. Quayle. April 27, 1936-June 30, 1937.</p>
shelf Unboxed	<p><b>CES Project No. 130</b> entitled <i>The Determination of a Satisfactory Method of Control of the Grape Bud Beetle Glyptocelis squamulata in the Coachella Valley</i> conducted by H.L. McKenzie, H.J. Quayle, and W. Ebeling. March 1936-April 20, 1940.</p>
shelf Unboxed	<p><b>CES Project No. 131</b> entitled <i>Investigation of Psorosis and Other Possible Virus Diseases of Citrus</i> conducted by H.S. Fawcett, L.J. Klotz, J.M. Wallace, and other staff. May 1933-December 1958.</p> <p><b>Note</b> Please consult CES Project No. 10 for related material.</p>
shelf Unboxed	<p><b>CES Project No. 132</b> entitled <i>Investigation of Petroleum Oils with the Inclusion of Toxic Materials as Insecticides</i> conducted by A.M. Boyce, J.P. LaDue, W. Ebeling, and H.J. Quayle. May 11, 1936-March 9, 1943.</p> <p><b>Note</b> Please consult Project No. 1268 for related material.</p>

---

- 
- shelf Unboxed **CES Project No. 133** entitled *Study of the Control of the Orange Tortix, *Argyrotaenia citrana* (Fern.), *Holcocera iceryacella* (Riley), and *Platynota stultana* (Wals)* conducted by A.M. Boyce, H.J. Quayle, C.O. Persing, and E.L. Atkins. 1935-November 30, 1959.
- Note**  
Project title revised to *Biology and Control of the So-called Orangeworms Attacking Citrus with Particular Reference to Orange Tortix, *Pyroderces*, and *Holcocera** in November 1947. Please consult CES Project No. 67 for related material.
- shelf Unboxed **CES Project No. 134** entitled *Investigation of Vegetable Diseases in Southern California with Special Reference to Bacterial Soft Rot of Potatoes* conducted by P.A. Miller, H.S. Fawcett, J.T. Middleton, and other staff. 1933-October 1961.
- Note**  
Project title revised to *Investigations of Vegetable Diseases in Southern California* in July 1941.
- shelf Unboxed **CES Project No. 135** entitled *Nitrogenous Accumulations in Citrus, Avocado, and Walnut* conducted by A.R.C Haas and E.T. Bartholomew. October 23, 1936-January 23, 1956.
- Note**  
Please consult CES Project Nos. 63 and 136-137 for related material.
- shelf Unboxed **CES Project No. 136** entitled *The Effect of Phosphate on Citrus, Avocado, and Walnut* conducted by A.R.C. Haas and E.T. Bartholomew. October 23, 1936-August 13, 1956.
- Note**  
Please consult CES Project Nos. 63, 135, and 137 for related material.
- shelf Unboxed **CES Project No. 137** entitled *Direct Effects of Organic Substances in Citrus, Avocado, and Walnut* conducted by A.R.C. Haas and E.T. Bartholomew. October 1936-August 14, 1956.
- Note**  
Please consult Project Nos. 64 and 135-136 for related material.
- shelf Unboxed **CES Project No. 138** entitled *A Physiological and Pathological Study of the Structure of Citrus Fruits* conducted by E.T. Bartholomew and F.M. Turrell. Includes photographs. June 1927-March 10, 1951.
- shelf Unboxed **Project No. 1129-R** entitled *Studies of the Mineral Nutrition of Vegetable Crops in Relation to Composition and Quality* conducted by O.A. Lorenz, Frank Takatori, R.F. Kasmire, and other staff. August 8, 1956-December 1962.
- shelf Unboxed **CES Project No. 139** entitled *Avocado Breeding* conducted by H.B. Frost, J.W. Lesley, P.A. Peterson, B.O. Bergh, and other staff. May 1937-December 1962.
- shelf Unboxed **CES Project No. 140** entitled *A Study of the Salinity of Soils as Influenced by the Quality of the Irrigation Supply* conducted by W.P. Kelley, B.M. Laurance, S.M. Brown, H.D. Chapman, and other staff. December 1935-January 10, 1963.
- shelf Unboxed **CES Project No. 141** entitled *A Study of the Clonal Strains of Commercial Citrus Varieties in Relation to Several Species of Rootstocks* conducted by L.D. Batchelor, R.E. Caryl, M.B. Rounds, W.P. Bitters, and other staff. March 1936-January 1962.
- Note**  
Project title revised to *Clonal Strains of Citrus Varieties in Relation to Longevity of Trees, Yields, and Quality of Fruit* in June 1952. Please consult CES Project Nos. 10, 21, and 131, and Project Nos. 1377, 1383, and 1544 for related material.
- shelf Unboxed **CES Project No. 142** entitled *Investigation of Toxic Aqueous Solutions as Insecticides with Special Reference to Their Effect on the Red Scale* conducted by W. Ebeling, H.J. Quayle, and W.M. Hoskins. October 1937-April 20, 1940.
-

- 
- shelf Unboxed **CES Project No. 148 entitled *Diseases of Ornamental Plants in Southern California* conducted by P.A. Miller. March 1937-July 1, 1941.**
- shelf Unboxed **CES Project No. 149 entitled *Spoilage of Date Fruit in Relation to Microorganisms* conducted by D.E. Bliss, W.B. Sinclair, F.M. Turrell, and other staff. Includes photographs. January 20, 1938-June 14, 1961.**
- shelf Unboxed **CES Project No. 150 entitled *Biochemical Study of the Composition of Citrus Tissues in Relation to Different Environmental Conditions and Various Rootstocks* conducted by E.T. Bartholomew and W.B. Sinclair. Includes photographs. April 1938-June 1963.**
- Note**  
Project title revised to *Pactin in Relation to the Soluble and Insoluble Carbohydrates of Immature and Mature Citrus Fruits* in October 1952.
- shelf Unboxed **CES Project No. 151 entitled *The Effect of the Addition of Nitrogen in Various Amounts Upon the Growth of Walnut Trees and Crops Produced* conducted by O.L. Braucher and E.R. Parker. March 1938-February 25, 1947.**
- Note**  
Please consult CES Project No. 52 for related material.
- shelf Unboxed **Project No. 1163-A entitled *Response of Subtropical Trees and Shrubs to Pruning* conducted by P.W. Moore, O.C. Taylor, and E.M. Nauer. November 14, 1955-December 1960.**
- shelf Unboxed **Project No. 1175 D-R entitled *Physiology and Quality of Vegetable Crops- Reactions of Vegetable Crops to Applied Chemicals Exclusive of Nutrients* conducted by L.K. Mann, M. Yamaguchi, C.A. Shadbolt, A.R. Spurr, and other staff. April 23, 1953-January 1963.**
- shelf Unboxed **Project No. 1175 E-R entitled *Physiology and Quality of Vegetable Crops - Miscellaneous Investigations on the Influence of Various Cultural and Environmental Factors on Vegetables* conducted by A.R. Spurr, C.A. Shadbolt, O.A. Lorenz, and other staff. April 22, 1953-January 1963.**
- shelf Unboxed **CES Project No. 152 entitled *A Study of Citrus Orchard Soils With Special Reference to the Possible Deleterious Effect of Past Fertilizational and Cultural Practices* conducted by S.M. Brown, A.P. Vanselow, H.D. Chapman, and other staff. June 19, 1939-August 31, 1954.**
- Note**  
Please consult CES Project No. 91 and Project No. 1373 for related material.
- shelf Unboxed **CES Project No. 153 entitled *Insect Pests of Lawn Grasses in California* conducted by R.M. Bohart. 1938-March 9, 1943.**
- shelf Unboxed **CES Project No. 154 entitled *A Physiological Study of the Effect of Sulphur Dusts and Sprays on Plants with Especial Reference to Susceptibility and Immunity to Injury* conducted by F.M. Turrell. Includes photographs. December 14, 1939-January 22, 1957.**
- shelf Unboxed **CES Project No. 156 entitled *Biology and Control of the Greenhouse Thrips, Heliothrips haemorrhoidalis (Bouche) on Valencia Oranges* conducted by A.M. Boyce, B.R. Bartlett, C.O. Persing, and other staff. June 1936-December 11, 1961.**
- shelf Unboxed **CES Project No. 157 entitled *Biology and Control of the Citrus Bud Mite, Eriophyes sheldoni (Ewing.)* conducted by A.M. Boyce, C.O. Persing, L.R. Jeppson. July 1938-November 30, 1960.**
- shelf Unboxed **CES Project No. 158 entitled *Control of the Citrus Thrips, Scirtothrips citri (Moult.) on Citrus With Particular Reference to the Lemon* conducted by A.M. Boyce, C.O. Persing, F.G. McCarty, W.H. Ewart, and other staff. March 1936-December 31, 1958.**
- shelf Unboxed **CES Project No. 159 entitled *Platynota stultana (Walsh.) and its Control on Carnations* conducted by R.M. Bohart and R.H. Smith. December 12, 1940-April 5, 1945.**
- shelf Unboxed **CES Project No. 160 entitled *The Value of High Dosages of HCN in the Control of Red Scale* conducted by D.L. Lindgren, R.C. Dickson, and H.J. Quayle. 1940-March 9, 1943.**
-

- 
- shelf Unboxed **CES Project No. 161 entitled *Life History of the Red Scale* conducted by R.C. Dickson and D.L. Lindgren. 1940-April 5, 1945.**
- shelf Unboxed **CES Project No. 162 entitled *Protective Stupefaction as a Factor in the Control of California Red Scale* conducted by D.L. Lindgren. 1940-April 5, 1945.**
- shelf Unboxed **CES Project No. 163 entitled *Laboratory Determination of Organic Compounds to be Used as Fumigants for the Control of Citrus Scale Insects* conducted by D.L. Lindgren and P.D. Gerhardt. 1940-February 27, 1953.**
- Note**  
Project title revised to *HCN and Other Fumigants in Control of Citrus Insects and Mites* in September 1948.
- shelf Unboxed **CES Project No. 164 entitled *Laboratory and Field Studies of Petroleum Oils for Insecticide Use* conducted by Walter Ebeling, L.A. Riehl, J.P. LaDue, and other staff. July 1940-January 16, 1956.**
- Note**  
Please consult CES Project Nos. 97 and 122-125 for related material.
- shelf Unboxed **CES Project No. 165 entitled *Biology and Control of Miscellaneous Insects and Mites* conducted by R.C. Dickson, A.M. Boyce, Walter Ebeling, and other staff. March 1940-February 28, 1952.**
- shelf Unboxed **CES Project No. 167 entitled *Black Scale Fumigation Investigations* conducted by D.L. Lindgren. 1940-March 9, 1943.**
- shelf Unboxed **Project No. 1263 entitled *Decline of Citrus and Avocado Trees* conducted by W.T. Horne, L.J. Klotz, M.B. Rounds, and other staff. November 18, 1942-October 18, 1948.**
- Note**  
Please consult CES Project No. 1382, Plant Pathology Project Nos. 252, 255-A, and 944, Agricultural Chemistry Project Nos. 881, 978, and 1234, and Orchard Management Project 1025 for related material.
- shelf Unboxed **Project No. 1267 entitled *The Development of Resistance to HCN in the California Red Scale* conducted by D.L. Lindgren, R.C. Dickson, and P.D. Gerhardt. September 1942-January 20, 1958.**
- Note**  
Project title revised to *Resistance of Citrus Insects to HCN and Other Fumigants* in September 1948.
- shelf Unboxed **Project No. 1268 entitled *A Laboratory Study Supplemented by Field Trials on the Use of Toxicants in Spray Oils for the Red Scale* conducted by D.L. Lindgren, W. Ebeling, R.G. Dickson, G.E. Carman, and other staff. August 25, 1942-January 11, 1960.**
- Note**  
Project title revised to *Laboratory and Field Studies of the Chemical Control Other than Tent Fumigation of the Armored Scale Insects on Citrus with Particular Reference to Red, Yellow, and Purple Scale* in November 1948, and *Biology and Control of the Armored Scale Insects on Citrus* in October 1949. Please consult CES Project No. 132 for related material.
- shelf Unboxed **Project No. 1269 entitled *Flower Thrips Affecting Ornamental Plants in California* conducted by R.M. Bohart and R.H. Smith. September 1942-April 5, 1945.**
- shelf Unboxed **Project No. 1297 entitled *The Physiological Effect of Insects and Insecticides on Citrus* conducted by E.T. Bartholomew, W.B. Sinclair, A.M. Boyce, and W. Ebeling. May 4, 1945-March 1, 1950.**
- shelf Unboxed **Project No. 1297-A entitled *The Physiological Effect of Insecticides on Citrus* conducted by R.T. Wedding, L.A. Riehl, G.E. Carman, and other staff. March 28, 1951-January 10, 1961.**
-

- 
- shelf Unboxed **Project No. 1305 entitled *Acidification of Soils with Special Reference to Its Influence on the Tree Condition, Fruit Quality, and Soil Properties of Citrus Orchards* conducted by D.G. Aldrich, B.M. Laurance, P.F. Pratt, and A.L. Page. July 1, 1946-November 1963.**
- shelf Unboxed **Project No. 1323 entitled *Studies on Periodic Colonizations of Entomophagous Insects as a Means of Pest Control* conducted by Paul DeBach, J.K. Holloway, R.L. Doutt, and other staff. February 25, 1947-March 1, 1952.**
- shelf Unboxed **Project No. 1325 entitled *Taxonomic Studies in Entomophagous Insects* conducted by P.H. Timberlake and Harold Compere. February 25, 1947-December 31, 1962.**  
**Note**  
Project title revised to *Identification and Classification of Insect Parasites and Predators* in January 1952.
- shelf Unboxed **Project No. 1326 entitled *Studies on the Effect of Insecticides on Entomophagous Insects* conducted by Paul DeBach, J.K. Holloway, C.B. Huffaker, B.R. Bartlett, and other staff. February 25, 1947-July 26, 1967.**  
**Note**  
Project title revised to *Laboratory Tests on the Effects of Insecticides Upon Parasites and Predators* in January 1952.
- shelf Unboxed **Project No. 1327 entitled *Biological Control of Codling Moth* conducted by R.L. Doutt. February 25, 1947-March 5, 1948.**
- shelf Unboxed **Project No. 1346 entitled *Effects of Plant Growth Regulators and Plant Hormones on Quality and Production of Citrus Fruits* conducted by W.S. Stewart, L.C. Erickson, R.T. Wedding, and other staff. December 1945-January 8, 1963.**  
**Note**  
Project title revised to *Plant Growth Regulators in Relation to the Physiology of Citrus* in April 1954.
- shelf Unboxed **Project No. 1373 entitled *The Nitrogen and Other Element Requirements of Citrus and Other Subtropical Fruits* conducted by H.D. Chapman, E.F. Wallihan, G.F. Liebig, and other staff. August 18, 1948-May 27, 1958.**  
**Note**  
Please consult CES Project Nos. 91 and 152 for related material.
- shelf Unboxed **Project No. 1376 entitled *Pathological Investigations: Transmission, Symptomatology, Host Range, Histology, Prevention or Control and Other Studies of So-called Orange Tree Quick Decline (Tristeza) Disease and its Casual Virus* conducted by J.M. Wallace, H. Schneider, H.S. Fawcett, G.A. Zentmyer, and other staff. September 1, 1948-October 24, 1963.**
- shelf Unboxed **Project No. 1377 entitled *A Study of the Relation of Biological Factors to the Slow Decline and Replant Problem of Citrus* conducted by R.C. Baines, J.P. Martin, D.G. Aldrich, W.P. Bitters, and other staff. July 1, 1945-November 1965.**  
**Note**  
Project title revised to *Citrus Replant Problem Including the Biological and Chemical Factors Involved* in May 1952. Please consult CES Project No. 10, 21, 131, and 141, and Project Nos. 1134, 1383, and 1544 for related material.
- shelf Unboxed **Project No. 1380 entitled *The Breeding of Corn Especially in Regard to Yield, Chemical Composition, and Pest and Disease Resistance in Southern California* conducted by J.W. Cameron. February 1947-December 1962.**
- shelf Unboxed **Project No. 1381 entitled *Investigations of Dry Bark and Shell Bark of Lemon Trees* conducted by E.C. Calavan, F.A. White, L.G. Weathers, G.E. Goodall, and other staff. March 5, 1948-March 23, 1964.**
-



- 
- shelf Unboxed **Project No. 1382 entitled *Orange Tree Quick Decline: Rootstock Scion Relations Affecting Its Occurrence and Prevention* conducted by W.P. Bitters and E.R. Parker. September 22, 1948-January 1959.**
- Note**  
For other notes concerning orange tree quick decline, please consult Project No. 1263.
- shelf Unboxed **Project No. 1383 entitled *Miscellaneous Virus and Virus-like Diseases of Citrus Trees* conducted by E.C. Calavan, F.A. White, J.M. Wallace, H.S. Fawcett, and other staff. March 1947-January 9, 1962.**
- Note**  
Project title revised to *Cachexia, Exocortis, Stubborn Disease, Vein Enation, Wood Pocket, Xyloporosis, and Other Virus and Virus-like Diseases of Citrus Not Specifically Included in Other Projects* in May 1955. Please consult CES Project No. 10, 21, 131, and 141, and Project Nos. 1134, 1377, and 1544 for related material.
- shelf Unboxed **Project No. 1405 entitled *Plant Viruses as Affected by Nutrition* conducted by J.B. Kendrick, J.T. Middleton, W.B. Sinclair, E.F. Wallihan, and other staff. May 1949-August 16, 1956.**
- shelf Unboxed **Project No. 1408 entitled *Soil - Moisture - Plant Relations of Avocado Trees* conducted by S.J. Richards, T.E. Szuszkiewicz, R.P. Dale, and other staff. June 1, 1948-December 1961.**
- shelf Unboxed **Project No. 1411 entitled *Biology, Ecology, and Control of Fruit Flies (Trypetidae) in the Hawaiian Islands* conducted by H.S. Smith, P.S. Messenger, W. Ebeling, C.P. Clausen, and other staff. Includes photographs. October 1, 1949-February 1, 1953.**
- shelf Unboxed **Project No. 1414 entitled *Mechanisms of Insecticidal Action* conducted by R.L. Metcalf, R.B. March, A.M. Boyce, F.A. Gunther, and other staff. August 1948-December 1, 1961.**
- shelf Unboxed **Project No. 1415 entitled *Biological and Chemical Evaluation of New Insecticides in the Laboratory* conducted by R.L. Metcalf, R.B. March, F.A. Gunther, and other staff. July 1948-December 31, 1962.**
- shelf Unboxed **Project No. 1416 entitled *Field Studies of the Biology and Chemical Control Other than Tent Fumigation of Unarmored Scales and Mealybugs on Citrus with Special Reference to Citricola Scale and Black Scale* conducted by W.H. Ewart, H.S. Elmer, G.E. Carman, and F.A. Guther. January 1949-December 31, 1958.**
- shelf Unboxed **Project No. 1417 entitled *Biology and Control of Snails* conducted by D.L. Lindgren, P.D. Gerhardt, G.E. Carman, A.M. Boyce, and other staff. Includes photographs. March 1, 1949-December 3, 1963.**
- shelf Unboxed **Project No. 1419 entitled *Biology and Control of Insects and Mites Attacking Walnuts in Southern California* conducted by J.C. Ortega, and M.M. Barnes May 1949-December 31, 1962.**
- Note**  
Please consult CES Project no. 98 for related material.
- shelf Unboxed **Project No. 1422 entitled *Oriental Fruit Fly Investigations - A Study of the Influence of Sterilization Treatments for the Oriental Fruit Fly on the Physiology, Handling, and Marketability of Fresh Fruits, Vegetables, and Cut Flowers* conducted by W. B. Sinclair, H.K. Pratt, L.L. Claypool, L.L. Morris, and other staff. August 1, 1949-December 15, 1959.**
- shelf Unboxed **Project No. 1422-A entitled *Fruit Fly Investigations - A Study of the Influence of Sterilization Treatments for the Various Fruit Fly on the Physiology, Handling, and Marketability of Citrus, Avocados, and Other Subtropical Fruits* conducted by W.B. Sinclair, D.L. Lindgren, W. Ebeling, and W.W. Jones. March 22, 1960-April 25, 1966.**
- shelf Unboxed **Project No. 1434 entitled *An Orchard Trial of Avocado Varieties* conducted by M.M. Winslow, W.B. Storey, and J. Enderud. January 1, 1943-December 17, 1962.**
- shelf Unboxed **Project No. 1435 entitled *Biological Control of the Western Grapeleaf Skeletonizer *Harrisina brillians* B. and McD.* conducted by O.J. Smith and A.J. Basinger. June 15, 1950-January 15, 1956.**
-

---

shelf Unboxed	<b>Project No. 1439 entitled <i>Effects of Synthetic Plant Hormones on the Metabolism of Citrus</i> conducted by B.E. Day. August 8, 1950-February 14, 1957.</b>
shelf Unboxed	<b>Project No. 1440 entitled <i>Biology and Control of Insects and Mites on Peaches, Plums, Apricots, Almonds, and Cherries in Southern California</i> conducted by M.M. Barnes, F.A. Gunther, and H.R. Moffitt. May 1946-December 31, 1962.</b>
shelf Unboxed	<b>Project No. 1441 entitled <i>Biology and Control of Insects and Mites on Sweet Corn, Cucurbits, Crucifers, Potatoes, Tomatoes, Lettuce, Carrots, Melons, and Other Vegetable Crops in Southern California</i> conducted by L.D. Anderson, H.T. Reynolds, F.A. Gunther, P.D. Gerhardt, and other staff. February 1948-December 28, 1962.</b>
	<b>Note</b> Project title revised to <i>Biology and Control of Insects and Mites on Vegetable Crops in Southern California</i> in October 1954.
shelf Unboxed	<b>Project No. 1442 entitled <i>Insect Transmission of Virus Diseases of Melons, Peppers, Sugar Beets, Alfalfa, and Other Vegetable and Field Crops in Southern California</i> conducted by R.C. Dickson, L.D. Anderson, H.T. Reynolds, and R.A. Flock. January 1948-December 16, 1959.</b>
shelf Unboxed	<b>Project No. 1443 entitled <i>Biology and Control of Insects and Mites on Alfalfa, Sugar Beets, Beans, Flax, and Other Field and Forage Crops in Southern California</i> conducted by L.D. Anderson, H.T. Reynolds, F.A. Gunther, V.M. Stern, and other staff. March 1948-December 28, 1962.</b>
shelf Unboxed	<b>Project No. 1444 entitled <i>Biology and Control of the Codling Moth, the Two-spotted Mite, and Other Insects and Mites on Apples and Pears in Southern California</i> conducted by M.M. Barnes, F.A. Gunther, April 1946-December 31, 1962.</b>
shelf Unboxed	<b>Project No. 1445 entitled <i>Biology and Control of the Western Grape Leaf Skeletonizer, the Grape Bud Mite and Other Insects and Mites on Grapes in Southern California</i> conducted by M.M. Barnes and F.A. Gunther. May 1946-December 31, 1962.</b>
	<b>Note</b> Project title revised to <i>Biology and Control of the Grape Leafhopper and Other Insects and Mites on Grapes in Southern California</i> in October 1954.
shelf Unboxed	<b>Project No. 1460 entitled <i>Diseases of Landscape Ornamental Plants</i> conducted by R.M. Endo, July 1951-January 8, 1963.</b>
shelf Unboxed	<b>Project No. 1463 entitled <i>Diseases of Vegetatively Propagated Ornamental Nursery Crops</i> conducted by D.E. Munnecke, J.W. Eckert, and M.P. Starr. August 1951-March 4, 1963.</b>
shelf Unboxed	<b>Project No. 1475 entitled <i>The Physiology of Weed Control</i> conducted by B.E. Day, R.C. Russell, L.S. Jordan. October 29, 1951-November 1963.</b>
	<b>Note</b> Project title revised to <i>Physiological Studies on Weeds and Weed Control in Southern California</i> in October 1961.
shelf Unboxed	<b>Project No. 1487 entitled <i>Biological Control of the Sod Webworm and Other Lawn Posts by Use of Disease-producing Organisms</i> conducted by I.M. Hall. December 18, 1953-January 2, 1958.</b>
shelf Unboxed	<b>Project No. 1493 entitled <i>Biological Control of Red, Yellow, Purple, and Other Diaspines on Citrus, Avocado, Walnut, and Ornamentals</i> conducted by Paul DeBach and T.W. Fisher. January 1, 1952-January 12, 1962.</b>
	<b>Note</b> This project replaces subprojects within Project Nos. 1319, 1321-1323, and 1326.
shelf Unboxed	<b>Project No. 1494 entitled <i>Biological Control of Insect Pests by Ants</i> conducted by S.E. Flanders. Includes photographs. January 1, 1952-January 2, 1957.</b>

---

- 
- shelf Unboxed **Project No. 1495 entitled *Biological Control of Mites on Citrus, Avocado, Walnut, and Ornamentals* conducted by C.A. Fleschner, J.A. McMurtry, and T.W. Fisher. January 1, 1952-December 31, 1963.**
- Note**  
This project replaces subprojects within Project Nos. 1319, 1321-1323, and 1326.
- shelf Unboxed **Project No. 1496 entitled *Biological Control of the Citricola, Black, and other Lecaniine Scales on Citrus, Walnut, and Ornamentals* conducted by B.R. Bartlett. January 1, 1952-December 31, 1960.**
- Note**  
This project replaces subprojects within Project Nos. 1319, 1321-1323, and 1326.
- shelf Unboxed **Project No. 1497 entitled *The Nitrogen Metabolism of Fruits and Vegetables with Reference to Their Maturity and Quality* conducted by R.T. Wedding and W.B. Sinclair. April 25, 1952-June 14, 1963.**
- shelf Unboxed **Project No. 1499 entitled *Effect of Pesticides on Apiculture* conducted by L.D. Anderson, E.L. Atkins, R.B. March, H.T. Reynolds, and other staff. April 28, 1952-December 31, 1962.**
- shelf Unboxed **Project No. 1500 entitled *Biological Control Survey of Field and Truck Crop Pests* conducted by Robert Van Den Bosch. April 24, 1952-July 24, 1956.**
- shelf Unboxed **Project No. 1513 entitled *Insect Pests of Stored Grain and Dried Food Products in Southern California* conducted by D.L. Lindgren, P.D. Gerhardt, R.G. Strong, and L.E. Vincent. May 14, 1952-December 30, 1959.**
- shelf Unboxed **Project No. 1514 entitled *Resistance of Insects to Insecticides* conducted by R.B. March, R.L. Metcalf, T.R. Fukuto, and other staff. Includes photographs. May 14, 1952-January 13, 1960.**
- shelf Unboxed **Project No. 1524 entitled *Soil Fungicides for Subtropical Horticultural Crops* conducted by J.B. Kendrick Jr., L.J. Klotz, J.T. Middleton, and G.A. Zentmyer. May 12, 1952-August 16, 1956.**
- shelf Unboxed **Project No. 1534 entitled *The Residual Effect of Repeated Applications of Radioactive Organic and Inorganic Sprays on Root Size and Growth of Citrus Seedlings* conducted by F.M. Turrell. August 1, 1952-December 15, 1959.**
- shelf Unboxed **Project No. 1544 entitled *Decline and Collapse of Lemon Trees* conducted by E.C. Calavan, D.G. Aldrich, R.C. Baines, L.D. Batchelor, and other staff. July 1, 1952-March 24, 1964.**
- Note**  
Please consult CES Project Nos. 10, 21, 131, and 141, and Project Nos. 1134, 1377, and 1383 for related material.
- shelf Unboxed **Project No. 1546 entitled *Soil Physical Conditions in Relation to Irrigation* conducted by S.J. Richards, A.F. Pillsbury, M.R. Huberty, O.R. Lunt, and other staff. February 26, 1952-December 1961.**
- Note**  
Please consult Project No. 745-A for related material.
- shelf Unboxed **Project No. 1547 entitled *Exploratory Research Into the Possibility of Controlling Insect Posts Through the Use of Disease Producing Organisms* conducted by I.M. Hall. July 15, 1954-December 31, 1963.**
- Note**  
Project title revised to *Research into the Possibilities of Controlling Insect and Arachnid Pests Through the Use of Disease Producing Microorganisms* in July 1961.
- shelf Unboxed **Project No. 1575 entitled *Diseases of Agronomic Crops of Southern California* conducted by D.C. Erwin. January 1953-January 5, 1959.**
-

---

shelf Unboxed	<b>Project No. 1576 entitled <i>Development of Analytical Methods for Insecticides and Acaricides as Residue Methods and as Composition Methods</i> conducted by F.A. Gunther, M.J. Kolbezen, and T.R. Fukuto. December 1, 1953-December 1, 1961.</b>
shelf Unboxed	<b>Project No. 1589 entitled <i>Chemical Control of Insects Attacking Poultry and Livestock in Southern California</i> conducted by D.L. Lindgren, R.L. Metcalf, R.B. March, L.A. Riehl, and other staff. January 6, 1954-December 19, 1962.</b>
shelf Unboxed	<b>Project No. 1595 entitled <i>The Effect of Storage Temperature and Length of Holding Upon the Physical and Chemical Characteristics of Citrus Fruits</i> conducted by I.L. Eaks and H.T. Freebairn. Includes photographs. August 11, 1953-December 15, 1959.</b>
shelf Unboxed	<b>Project No. 1597 entitled <i>The Effect of Fungistats and Fugicides Upon the Quality and Storagability of Citrus Fruits</i> conducted by I.L. Eaks. November 18, 1953-March 27, 1959.</b>
shelf Unboxed	<b>Project No. 1606 entitled <i>The Orange- Its Composition and Biochemistry</i> conducted by W.B. Sinclair and L.D. Batchelor. May 1953-April 18, 1961.</b>
shelf Unboxed	<b>Project No. 1610 entitled <i>The Effect of Methods of Handling, Treatment, and Packing of Citrus Fruits Upon Quality, Storage, Shipment, and the Chemical Changes in the Fruit</i> conducted by I.L. Eaks. February 12, 1952-December 9, 1964.</b>
shelf Unboxed	<b>Project No. 1611 entitled <i>Effect of Pesticides in the Soil Upon the Growth, Flavor, and Yield of Various Crops, and Upon Soil Chemical, Physical, and Biological Properties</i> conducted by L.D. Anderson, H.T. Reynolds, P.D. Gerhardt, L.A. Riehl, and other staff. Fall 1952-December 31, 1962.</b>
shelf Unboxed	<b>Project No. 1617 entitled <i>Biology and Control of Nematodes Attacking Citrus Trees</i> conducted by R.C. Baines, W.P. Bitters, G.A. Cahoon, J.W. Cameron, and other staff. 1954-December 1963.</b>
shelf Unboxed	<b>Project No. 1625 entitled <i>The Biology and Control of Nematodes Attacking Tomatoes, Beans, Cucurbits, and Related Vegetables and Field Crops</i> conducted by I.J. Thomason and Bert Lear. July 1, 1954-April 25, 1962.</b>
shelf Unboxed	<b>Project No. 1626 entitled <i>Development of Nematocides and Methods of Their Application to Pre-planting and Living Plant Sites as Influenced by Physical and Chemical Properties of Fumigant, Nematode Species Involved, Physical Structure of Soil, and Environmental Factors as Soil Type, Moisture, Compactness, and Temperature</i> conducted by Bert Lear, R.C. Baines, L.H. Stolzy, and N.B. Akesson. December 1, 1953-January 1959.</b>
shelf Unboxed	<b>Project No. 1627 entitled <i>Biology and Control of Nematodes Attacking Ornamentals</i> conducted by S.A. Sher and M.W. Allen. 1954-August 17, 1962.</b>
shelf Unboxed	<b>Project No. 1630 entitled <i>Avocado Fertilization</i> conducted by T.W. Embleton, W.W. Jones, F.T. Bingham, and C.K. Labanauskas. 1952-November 1963.</b>
	<b>Note</b>
	This project was previously reported under CES Project No. 58. Project title revised to <i>Field Studies of Macro and Micro-Nutrient Nutrition and Fertilization of Avocados</i> in January 1957.
shelf Unboxed	<b>Project No. 1631 entitled <i>Influence of Fertilizers, Soil Amendments, and Systems of Culture on the Growth, Yield, Quality, and Size of Fruit of Citrus Trees, and the Soil Changes Resulting from these Treatments and Cultural Practices</i> conducted by T.W. Embleton, W.W. Jones, R.B. Harding, J.P. Martin, and other staff. 1952-August 15, 1963.</b>
	<b>Note</b>
	This project was previously reported under CES Project No. 58.
shelf Unboxed	<b>Project No. 1632 entitled <i>Macronutrient Sprays in Relation to Growth and Productivity of Citrus and Avocados</i> conducted by W.W. Jones, T.W.Embleton, L.R. Jeppson, F.T. Bingham, and other staff. 1952-August 15, 1963.</b>
	<b>Note</b>
	This project was previously reported under CES Project No. 58.

---

- 
- shelf Unboxed **Project No. 1633 entitled *Effect of Air Pollution Upon Agricultural Crops, Methods for Reducing Plant Damage, and Identification of Airborne Phytotoxicants* conducted by J.T. Middleton, G.W. Todd, R.T. Wedding, E.F. Darley, and others staff. December 1954-December 2, 1963.**
- shelf Unboxed **Project No. 1633-B entitled *The Effects of Fluorides in Air, Water, and Soil on Growth, Yields, and Quality of Horticultural and Agronomic Crops* conducted by H.D. Chapman and R.F. Brewer. November 1951-April 1964.**
- shelf Unboxed **Project No. 1649 entitled *Nature of Fungitoxicity to Phytopathogenic Soil-borne Organisms* conducted by J.B. Kendrick Jr., G.A. Zentmyer, and J.T. Middleton. April 1954-November 12, 1963.**
- shelf Unboxed **Project No. 1650 entitled *Biological Control of Yellow Clover Aphid and Other Aphid Pests of Field and Orchard Crops* conducted by O.J. Smith, Robert van den Bosch. I.M. Hall, E.I. Schlinger, and other staff. April 28, 1955-December 31, 1960.**
- Note  
Project title revised to *Biological Control of Spotted Alfalfa Aphid and Other Aphid Pests of Field and Orchard Crops* in December 1955.
- shelf Unboxed **Project No. 1665-R entitled *Cultural Practices for Potatoes as Influencing Yield and Quality* conducted by Herman Timm, G.N. Davis, O.A. Lorenz, K.B. Tyler, and other staff. May 31, 1955-December 7, 1964.**
- shelf Unboxed **Project No. 1671 entitled *The Biology and Control of the Khapra Beetle* conducted by D.L. Lindgren, G.E. Carman, R.L. Metcalf, and R.G. Strong. July 1, 1955-December 7, 1961.**
- shelf Unboxed **Project No. 1694 entitled *Basic Mineral Nutrition of Avocado Trees* conducted by F.T. Bingham, R.C. McColloch, T.W. Embleton, and C.K. Labanauskas. March 1955-December 1962.**
- shelf Unboxed **Project No. 1695 entitled *Relation of Phosphorus to the Availability of Micronutrients in Soils* conducted by F.T. Bingham, H.D. Chapman, O.A. Lorenz, and J.P. Martin. March 1955-November 1963.**
- shelf Unboxed **Project No. 1701 entitled *The Biochemistry of Maturation in Avocado Fruit* conducted by R.C. Bean. February 14, 1956-December 31, 1963.**
- shelf Unboxed **Project No. 1702 entitled *The Biology of Entomophagous Arthropods* conducted by R.L. Doult, S.E. Flanders, and E.I. Schlinger. Includes photographs. 1956-February 12, 1965.**
- shelf Unboxed **Project No. 1718 entitled *Biological Control of Plant Parasitic Nematodes* conducted by R.C. Baines, O.F. Clarke, and R. Mankau. 1954-December 1963.**
- shelf Unboxed **Project No. 1726 entitled *Enzyme Relations in the Maturation and Ripening of Citrus Fruit* conducted by R.C. Bean and W.B. Sinclair. May 2, 1956-December 15, 1964.**
- shelf Unboxed **Project No. 1728 entitled *Cooperative Research on Soil and Water Management of Dry-farm Grainland and Related Lands* conducted by Maurice Donnelly, A.E. Lang, and R.E. Luebs. July 1, 1953-January 4, 1962.**
- shelf Unboxed **Project No. 1731 entitled *Wind Machine Operation Prior to and Following Freezing Temperatures as Protection Against Freeze Injury in Citrus Groves* conducted by F.M. Turrell, R.L. Perry, and F.A. Brooks. 1945-January 4, 1963.**
- shelf Unboxed **Project No. 1736 entitled *A Study of Efficiency in Handling Eggs and of Controlling Their Quality from Producer to Consumer* conducted by R.J. Smith and H. Najima. January 9, 1957-November 15, 1961.**
- shelf Unboxed **Project No. 1741 entitled *Effect of Pesticides on the Natural Balance of Mites and Insects in Avocado Orchards* conducted by C.A. Fleschner and J.A. McMurty. Includes photographs. February 15, 1957-December 31, 1962.**
- shelf Unboxed **Project No. 1751 entitled *The Flavor Constituents of Citrus Fruits in Relation to Quality and Maturity Standards of the Fresh Fruit* conducted by R.L. Clements. July 1, 1956-December 31, 1962.**
- shelf Unboxed **Project No. 1765 entitled *Chemical Control of Post-harvest Fruit and Vegetable Decays Occuring in Packing Houses, Transit, Storage, and Markets* conducted by J.W. Eckert, M.J. Kolbezen, and I.L. Eaks. September 1957-January 10, 1963.**
- shelf Unboxed **Project No. 1821 entitled *Irrigation Studies with Vegetables Under Southern California Conditions* conducted by G.H. Cannell. January 1957-December 1963.**
-

---

shelf Unboxed	<b>Project No. 1822 entitled <i>Rind Staining and Physiological Rind Breakdown of Citrus Fruits</i> conducted by I.L. Eaks, W.W. Jones, C.W. Coggins Jr., G.A. Cahoon, and B.L. Grover. July 1958-December 31, 1963.</b>
shelf Unboxed	<b>Project No. 1845 entitled <i>Plant Regulator Influence on Citrus and Avocado</i> conducted by C.W. Coggins Jr. and H.Z. Hield. December 10, 1958-January 1962.</b>
shelf Unboxed	<b>Project No. 1851 entitled <i>Preparation of a book "The Fundamentals of Biological Control"</i>. Project lead by Paul DeBach with contributions made by B.R. Bartlett, T.W. Fischer, C.B. Huffaker, and other staff. 1958-January 4, 1965.</b>
shelf Unboxed	<b>Project No. RPF-1875 (WM-16) entitled <i>A Study of the Relation of Moisture Content and Temperature of Various Grains in Storage to the Effectiveness of Common Grain Fumigants under Forced Circulation as Affecting Grain Marketability</i> conducted by D.L. Lindgren and R.G. Strong. April 7, 1959-May 1965.</b>
shelf Unboxed	<b>Project No. 1917 entitled <i>Life Cycle, Physiology and Control of Perennial Weeds Affecting Subtropical Fruit Crops</i> conducted by L.S. Jordan and B.E. Day. October 20, 1959-November 1963.</b>
shelf Unboxed	<b>Project No. 1927 entitled <i>Management, Manipulation, and Measurement of Vegetation on Watershed</i> conducted by C.F. Walker, R.M. Love, and C.M. McKell. January 15, 1960-January 31, 1963.</b>
shelf Unboxed	<b>Project No. 1929 entitled <i>Biology, Ecology, Control, and Behavior of Hippelates Eye Gnats</i> conducted by R.W. Dorner, R.L. Metcalf, and M.S. Mulla. February 1956-November 20, 1963.</b>
shelf Unboxed	<b>Project No. 1941 entitled <i>The Influence of Environment on Plant Response to Various Irrigation Treatments</i> conducted by John Letey Jr. and Nicholas Valoras. June 1959-December 31, 1963.</b>
shelf Unboxed	<b>Project No. TII-1960 entitled <i>Factors Influencing Effectiveness of Citrus Decay Control Agent With Special Reference to New Treatments Based on Dibromotetrachloroethane and Secondary Butylamine</i> conducted by J.W. Eckert, M.J. Kolbezen, and I.L. Eaks. October 6, 1962-July 1, 1964.</b>
shelf Unboxed	<b>Project No. 1962 entitled <i>Use of Sexual Sterilization and of Other Autocidal Methods in the Control of Agricultural Pests</i> conducted by P.S. Messenger, K.S. Hagen, I.M. Hall, and other staff. November 21, 1960-February 25, 1963.</b>
shelf Unboxed	<b>Project No. 1976 entitled <i>Efficiency in the Harvest and Handling into the Packing House of Horticultural Crops</i> conducted by R.J. Smith. January 3, 1961-November 1961.</b>
	<b>Note</b>
	Please consult Project No. 2001 entitled <i>Labor Efficiency in Citrus and Other Horticultural Crops</i> for related material.
shelf Unboxed	<b>Project No. H-1984 entitled <i>Photoresponses of Citrus and Other Subtropical Plants</i> conducted by P.B. Lombard and E.M. Nauer. March 1, 1961-June 6, 1963.</b>
	<b>Note</b>
	Please consult Project No. 2156 entitled <i>Influence of Environment, Chemical Additives, and Air Pollutants on Apparent Photosynthesis and Respiration by Intact Horticultural Plants</i> for related material.
shelf Unboxed	<b>Project No. 1996 entitled <i>Aquatic Midge Investigations in Southern California</i> conducted by L.D. Anderson and E.C. Bay. September 1959-January 7, 1963.</b>
shelf Unboxed	<b>Project No. 2009 entitled <i>Citrus Fruits - Marketing and Utilization of the Crop</i> conducted by M.A. Joslyn and W.B. Sinclair. September 12, 1961-December 19, 1965.</b>
shelf Unboxed	<b>Project No. 2032 entitled <i>The Biological Control of Gnats, Flies, and Mosquitoes</i> conducted by E.C. Bay and E.F. Legner January 1, 1961-December 31, 1963.</b>
shelf Unboxed	<b>Project No. 2240 entitled <i>Biochemical Effects of Air Pollutant Oxidants</i> conducted by J.B. Mudd. January 1, 1964-December 10, 1965.</b>
shelf Unboxed	<b>Project No. 2242 entitled <i>Investigation of Methods for Determining Avocado Maturity</i> conducted by Gerald Zachariah and Louis Erickson. March 31, 1964-December 7, 1965.</b>

---

---

shelf Unboxed

**Reports regarding research conducted in soils and plant nutrition, agricultural engineering, and biochemistry conducted by J.J. Oertli, T.W. Embleton, R.M. Perkins, N.G. Pon, and other staff. December 1964.**

**Series 8. Photographic material. 1898-1986, undated.**

**Series Scope and Content Summary**

This series contains 35mm slides, black-and-white photographs, and lantern slides, as well as nitrate, glass plate, and black-and-white negatives. Images document Citrus Experiment Station (CES) facilities, land, staff, faculty, orchards, and crops. Materials pertaining to experiments and fieldwork conducted in fields and orchards located on and around CES land are also included.

For preservation and safety concerns, the use of nitrate negatives in Sub-series 8.5. is restricted. Please contact Special Collections & Archives for additional information regarding this material.

**Series Arrangement**

This series is arranged into five sub-series:

Sub-series 8.1. 35mm slides. 1937-1960s, undated.

Sub-series 8.2. Black-and-white photographs. 1898-1986, undated.

Sub-series 8.3. Lantern slides. 1904-1938, undated.

Sub-series 8.4. Glass plate negatives. 1904-1929, undated.

Sub-series 8.5. Nitrate negatives. 1808-1950, undated.

---

**35mm slides. Sub-series 8.1. 1937-1960s, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains 35mm slides of exterior views of Citrus Experiment Station (CES) buildings, portraits of CES faculty and staff, and documents regarding fruit experiments.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 51, Folder 18

Box 53, Folder 47

Box 53, Folder 48

Box 53, Folder 49

**Color portrait of Homer D. Chapman (five copies). undated.**

**Exterior views of the CES main building (color). circa 1960s.**

**Color portraits of CES secretaries. Includes one photograph. circa 1955.**

**Black-and-white images of documents entitled *Fruits with Water Spot, Drops and Picked*. Includes paper document with copyedits. 1937-1938.**

---

**Black-and-white photographs. Sub-series 8.2. 1898-1986, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains black-and-white photographs of Citrus Experiment Station (CES) buildings, faculty, staff, equipment, orchards, and crops. Images primarily show exterior, interior, and aerial views of the CES main building, entomology laboratory, barns, and other CES facilities, including the original CES laboratory at Mt. Rubidoux. Images originally housed in Kodak nitrate negative albums created or collected by E.R. Parker depict avocado, walnut, and citrus crops with injuries, deficiencies, and diseases. Images created or collected by E.E. Thomas show barley, cowpea, and alfalfa fields and other crops. Other images depict experiments conducted in CES orchards and fields and Riverside landmarks, including the parent Washington navel orange tree. Staff and faculty portraits are also included. A CD-ROM containing digital images originally taken by James Theophilus Barrett depict the CES garden, the house of Louis Rubidoux, and other Riverside landmarks.

For glass plate negatives created or collected by E.E. Thomas, please consult Sub-series 8.4, Lantern slides.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

---

Box 50, Folder 1	<b>Exterior and interior views of CES and USDA greenhouses. Includes photographs of the entomology annex greenhouses and laboratories. 1921-1963, undated.</b>
Box 50, Folder 2	<b>Exterior views of the main CES building's north wing, also referred to as the chemistry wing. Includes construction photographs. 1930-1932, undated.</b>
Box 50, Folder 3	<b>Exterior views of the CES director's residence. 1917-1926, undated.</b>
Box 50, Folder 4	<b>Exterior views of CES pump houses. Includes one photograph taken from the top of a pump house. 1917-1929.</b>
Box 50, Folder 5	<b>Exterior views of CES barns. 1917-1928.</b>
Box 50, Folder 6-7	<b>Exterior front views of the main CES building. 1917-1932, undated.</b>
Box 50, Folder 8	<b>Exterior side views of the main CES building. 1916-1938, undated.</b>
Box 50, Folder 9	<b>Exterior back views of the main CES building. 1916-1921, undated.</b>
Box 50, Folder 10	<b>Exterior views of the main CES building's south wing. 1921-1938, undated.</b>
Box 50, Folder 11-12	<b>Aerial views of CES buildings and surrounding land. Includes photographs taken by the Soil Conservation Service, March 1948. 1917-1958, undated.</b>
Box 50, Folder 13	<b>Views of land for prospective CES sites. 1907-1917, undated.</b>
Box 50, Folder 14	<b>View of CES buildings under construction. 1930-1949, undated.</b>
Box 50, Folder 15	<b>View of the CES Rubidoux Tract prior to planting (four copies). 1907.</b>
Box 50, Folder 16	<b>Exterior views of the former CES building located on Mt. Rubidoux. Includes photographs of a farmers' meeting on Mt. Rubidoux and field day celebration. 1912-1917.</b>
Box 50, Folder 17	<b>View of the CES dedication ceremony (four copies). 1918.</b>
Box 50, Folder 18	<b>Images chronicling the construction and completion of the CES entomology and insectary buildings. Includes photographs of completed buildings. 1930-1937, undated.</b>
Box 50, Folder 19	<b>Exterior view of the CES irrigation reservoir. 1927-1929.</b>
Box 50, Folder 20	<b>Views taken in hallways and archways of CES buildings. 1931-1938, undated.</b>
Box 50, Folder 21	<b>Exterior and interior views of lath houses on CES property. 1929, undated.</b>
Box 50, Folder 22	<b>Exterior views of headhouses used for library work by the subtropical horticulture summer session. undated.</b>
Box 50, Folder 23	<b>Exterior views of the Limoneira Ranch (two photographs). June 1915.</b>
Box 50, Folder 24	<b>Exterior view of cottages on CES property. 1929.</b>
Box 50, Folder 25	<b>View of roads next to CES. 1932, undated.</b>
Box 50, Folder 26	<b>Exterior view of the Agricultural Extension Service. circa 1965.</b>
Box 50, Folder 27	<b>Exterior and interior views of the CES entomology building. circa 1932.</b>
Box 50, Folder 28	<b>Interior view of a CES fumigation laboratory (two copies). undated.</b>
Box 50, Folder 29	<b>Interior views of the spray laboratory at CES (two copies). 1932.</b>
Box 50, Folder 30	<b>Interior view of the plant pathology laboratory. circa 1935.</b>
Box 50, Folder 31	<b>Images from the 50th anniversary of CES library exhibit. February 14, 1957.</b>
Box 50, Folder 32	<b>Interior view of a desk possibly located in a CES office (two copies). undated.</b>
Box 50, Folder 33	<b>Images of metalworkers manufacturing equipment in a machine shop. undated.</b>
Box 50, Folder 34	<b>Images of draft horses in CES orchards. Includes photographs of the original CES site on Mt. Rubidoux. 1916-1929, undated.</b>
Box 50, Folder 35	<b>Views of citrus orchards located in Riverside and other surrounding locations. 1914-1944, undated.</b>
Box 50, Folder 36	<b>Interior view of a chemistry laboratory in Whittier, California. undated.</b>
Box 51, Folder 1	<b>Images of tractors, heaters, grading machines, and other equipment used for growing, producing, and maintaining citrus fruits. 1962, undated.</b>
Box 51, Folder 2	<b>Images of smog and air pollution experiments. 1954, undated.</b>
Box 51, Folder 3	<b>Images of experiments being conducted in biological control, entomology, soils, and other areas of citrus research. 1934-1958, undated.</b>
Box 51, Folder 4	<b>Images of fieldwork on walnut trees and a plan for a fertilizer walnut experiment. 1920, undated.</b>
Box 51, Folder 5	<b>Views of soybean, clover, and black eyed pea fields. 1919-1922, undated.</b>
Box 51, Folder 6	<b>Views of the parent Washington navel orange tree in Riverside, California. 1898-1916, undated.</b>
Box 51, Folder 7	<b>Images of crates filled with oranges and lemons. 1915, undated.</b>
Box 51, Folder 8	<b>Views of alfalfa, wheat, and other fields with crops. 1918-1926, undated.</b>

---



---

Box 51, Folder 9	<b>Views of the oldest sweet orange trees located in Butte County and East Highland, California. 1915, 1944.</b>
Box 51, Folder 10	<b>Images of CES faculty, staff, and visitors planting trees and touring orchards and CES buildings. 1928-1955, undated.</b>
Box 51, Folder 11	<b>Images of CES plant physiology staff and experiments. 1926-1955.</b>
Box 51, Folder 12	<b>Images of CES summer class students. 1913-1932.</b>
Box 51, Folder 13	<b>Images of a tractor management class at CES. 1918.</b>
	<b>Note</b>
	To view additional copies of this image, please consult Subseries 8.3, Lantern slides: Box 62 and Series 9, Citrus Experiment Station anniversary celebrations.
Box 51, Folder 14	<b>Images of a Rubidoux stock experiment involving Washington navel and sweet orange trees. undated.</b>
Box 51, Folder 15	<b>Portraits of Dr. Leon D. Batchelor. 1938, undated.</b>
Box 51, Folder 16	<b>Portraits of Dr. W.P. Kelley. undated.</b>
Box 51, Folder 17	<b>Images of Dr. Alfred M. Boyce in his office and conducting fieldwork. 1930s-1959, undated.</b>
Box 51, Folder 18	<b>Images of Homer and Daisy Chapman, and CES soils annex events. Includes correspondence, applications to the Consulate General of the United Arab Republic regarding a request to travel to Egypt and Syria, and other material. 1952-1986, undated.</b>
Box 51, Folder 19	<b>Image of Dr. Howard S. Reed in front of a CES building. 1935.</b>
Box 51, Folder 20	<b>Images of CES faculty, students, and administrative staff attending CES functions, conducting fieldwork, and sitting in offices. 1924-1947, undated.</b>
Box 51, Folder 21	<b>Group portraits of CES faculty and staff. Includes an autographed portrait from 1931. 1914-1954, undated.</b>
Box 51, Folder 22	<b>Portraits of CES faculty and staff. circa 1920-1990.</b>
Box 51, Folder 23	<b>Group portraits from CES related conferences and meetings. 1936-1969.</b>
Box 51, Folder 24	<b>Image of press clippings from the International Citrus Symposium (three copies). March 1968.</b>
Box 51, Folder 25	<b>Image of a Riverside Daily Press article regarding the approval for a citrus station in Riverside. December 23, 1914.</b>
Box 51, Folder 26	<b>Images of Howard S. Fawcett. 1930, undated.</b>
Box 52, Folder 1	<b>Views of Al Boyce, Jim Kendrick, Joe Eckard, and L. Joe Clotz touring the CES fruit packing room. undated.</b>
Box 52, Folder 2	<b>Group portrait of CES staff and faculty (framed). undated.</b>
Box 52, Folder 3	<b>Journal of E.R. Parker regarding photographs of avocado, walnut, fig, and citrus trees. 1940-1947.</b>
Box 52, Folder 4-5	<b>Images created or collected by E.R. Parker of avocado trees affected by sunblotch and other diseases. 1929, undated.</b>
Box 52, Folder 6	<b>Images created or collected by E.R. Parker of Mr. George Westcott and Concord walnut trees. 1938.</b>
Box 52, Folder 7	<b>Images created or collected by E.R. Parker of walnut trees with injuries and diseases. 1927-1942.</b>
Box 52, Folder 8	<b>Images of citrus leaves and branches. 1926, undated.</b>
Box 52, Folder 9	<b>Images of cross sections of oranges. undated.</b>
Box 52, Folder 10	<b>Images of leaves and branches of lemon and Valencia orange trees with zinc deficiency. 1943.</b>
Box 52, Folder 11	<b>Images of orange leaves and trees with zinc deficiency from Cactus Ave. in Bloomington, California. December 1, 1942.</b>
Box 52, Folder 12	<b>Images of citrus heaters and trees with oil injury. 1932.</b>
Box 52, Folder 13	<b>Images and figures with descriptions from <i>Effect of Zinc Applications in the Crop of Grapefruit Trees Affected with Mottle-Leaf</i> by E.R. Parker. Photographs by H.L. McKenzie (includes copyedits). circa 1936.</b>
Box 52, Folder 14	<b>Images and kodacrome slides of citrus trees at Hope Ranch in Santa Barbara, California. 1943.</b>
Box 52, Folder 15	<b>Images created or collected by E.R. Parker of citrus trees and leaves located at CES. 1934-1943, undated.</b>

---

---

Box 52, Folder 16	<b>Images of lemon leaves treated with nitrate and soda from the orchards of W.H. Montgomery in San Dimas, California. December 26, 1940, undated.</b>
Box 52, Folder 17	<b>Images of citrus trees with manganese deficiency from the Felsenthal Orchard in Fillmore, California. 1942-1950.</b>
Box 52, Folder 18	<b>Images of wilted avocado trees at the San Joaquin Fruit Company. undated.</b>
Box 52, Folder 19	<b>Images of diseased, injured, and deficient lemon leaves. 1941, undated.</b>
Box 52, Folder 20	<b>Images created or collected by Dr. Coit of a Valencia orange tree and a Eureka lemon tree raised from mottled bud. 1911.</b>
Box 52, Folder 21	<b>Photographs and kodachrome slides created or collected by U.E. Smith of lemon and walnut trees with manganese deficiency at Tepusquet Canyon in Santa Barbara. September 15, 1943.</b>
Box 52, Folder 22	<b>Images of lemon leaves with signs of yellowing from the Leffingwell Planting Company. March 26, 1941.</b>
Box 52, Folder 23	<b>Images of cross sections of lemons. undated.</b>
Box 52, Folder 24	<b>Images of olive trees treated with fertilizer in Tulane County, California. 1940.</b>
Box 52, Folder 25	<b>Images created or collected by E.R. Parker of lemon leaves, branches, and trees from Dr. Fawcett's lemon experiment. July 23, 1941.</b>
Box 52, Folder 26	<b>Images created or collected by E.R. Parker of avocado trees infected with decline at the Oscar Ellis Orchard Vista. January 26, 1943.</b>
Box 52, Folder 27	<b>Images of persimmons. undated.</b>
Box 52, Folder 28	<b>Portrait of the secretary of the Royal Horticultural Society (1888-1920) William Wilks presented to the CES library by T.D.A. Cockerell. August 2, 1943.</b>
Box 53, Folder 1	<b>Images of nitrate nitrogen line graphs. 1938-1940.</b>
Box 53, Folder 2	<b>Images of prints used at the conference of the California Fertilizer Association regarding yields of phosphorus and potassium when used with Urea and cover crops. 1948.</b>
Box 53, Folder 3	<b>Images of E.R. Parker, Abbott, and W. Lawless, and citrus trees. 1939, undated.</b>
Box 53, Folder 4	<b>Images created or collected by E.R. Parker of orange tree roots located at CES. May 1941.</b>
Box 53, Folder 5	<b>Images created or collected by E.R. Parker of avocado leaves with possible sunblotch. March 28, 1941.</b>
Box 53, Folder 6	<b>Images of Valencia orange tree twigs (addressed to E.R. Parker). February 1949.</b>
Box 53, Folder 7	<b>Images of peach leaves with manganese deficiency from Ojai Road in Ventura County. July 1940.</b>
Box 53, Folder 8	<b>Images of Washington navel orange leaves, fruit, and trees. 1941, undated.</b>
Box 53, Folder 9	<b>Image by C.O. Smith of a tree and thermometers indicating the outside temperature at CES. January 1937.</b>
Box 53, Folder 10	<b>Image of brittle and normal guava leaves after being subjected to temperatures below freezing. 1937.</b>
Box 53, Folder 11	<b>Images of Eureka lemons treated and untreated with zinc from M.C. Warren's ranch. April 27, 1935.</b>
Box 53, Folder 12	<b>Views of Eureka lemon trees before pruning. October 1915.</b>
Box 53, Folder 13	<b>Views of Eureka lemon trees after pruning. October 22, 1915.</b>
Box 53, Folder 14	<b>View of an Eureka lemon tree with albino limbs. May 1915.</b>
Box 53, Folder 15	<b>Views of lemon trees that have been pulled out by their roots at the Temescal Water Company in Riverside, California. August 20, 1925.</b>
Box 53, Folder 16	<b>Image of a farmer recording the weight of Eureka lemons produced during a regular monthly pick. May 17, 1915.</b>
Box 53, Folder 17	<b>View of a tent covering 7 acres of lemon trees at Flagler Ranch in Corona, California. May 17, 1915.</b>
Box 53, Folder 18	<b>Cluster of 7 Eureka lemons from the Chase Plantation in Corona, California. March 1916.</b>
Box 53, Folder 19	<b>Views of marsh seedless grapefruit trees in Highgrove and Oasis, California. 1911, 1925.</b>
Box 53, Folder 20	<b>View of the first marsh tree planted in California at the residence of J.E. Cutter in Riverside. June 1916.</b>
Box 53, Folder 21	<b>Image of a typical fruit bearing bud stick of a Marsh grapefruit. undated.</b>

---

---

Box 53, Folder 22	<b>Images of Valencia orange bud sticks with fruit attached and detached. April 15, 1916.</b>
Box 53, Folder 23	<b>Images of unproductive and abnormal Valencia orange trees at Box Springs Variety Orchard. June 18, 1925.</b>
Box 53, Folder 24	<b>Images of Valencia oranges with navel orange fruit spots. August 25, 1925.</b>
Box 53, Folder 25	<b>View of Valencia tree buds from the Rubidoux station nursery. October 1918.</b>
Box 53, Folder 26	<b>Views of Valencia orange trees located in Laguna Beach, California. 1934.</b>
Box 53, Folder 27	<b>Images of employees performing recording-keeping duties for Washington navel oranges tree production. May 17, 1915.</b>
Box 53, Folder 28	<b>Views of Washington navel trees before topping. October 1915.</b>
Box 53, Folder 29	<b>Views of Washington navel trees after topping. October 1915.</b>
Box 53, Folder 30	<b>Images of Tahiti sweet seedlings top-worked to Washington navel orange trees at Randall Ranch in Highland, California. May 26, 1925.</b>
Box 53, Folder 31	<b>Images of top-worked Washington navel orange trees in Highgrove, California. September 12, 1925.</b>
Box 53, Folder 32	<b>View of pump lanes used for raising irrigation water to a higher level. May 17, 1915.</b>
Box 53, Folder 33	<b>Image of a shelter containing instruments used to record climate conditions. May 17, 1915.</b>
Box 53, Folder 34	<b>View of a tangerine tree at Vivienda Ranch in Riverside, California. 1911.</b>
Box 53, Folder 35	<b>Image of a cross section of an apple grown in Pennsylvania. September 28, 1916.</b>
Box 53, Folder 36	<b>Image of an abnormal ear of corn. August 27, 1925.</b>
Box 53, Folder 37	<b>Inarches of sour and sweet oranges, and rough lemons installed by Glenn Blackman, W.M. Mertz, and Dr. H.J. Webber. 1918.</b>
Box 53, Folder 38	<b>Images of a nematode and other insects. undated.</b>
Box 53, Folder 39	<b>Image of some double flowers of <i>Prunus mume</i> (plum blossom). June 18, 1932.</b>
Box 53, Folder 40	<b>Images created or collected by E.E. Thomas of cowpea fields. October 19, 1922.</b>
Box 53, Folder 41	<b>Images created or collected by E.E. Thomas of barley fields. 1920-1922, undated.</b>
Box 53, Folder 42	<b>Images created or collected by E.E. Thomas of alfalfa fields. 1924-1926, undated.</b>
Box 53, Folder 43	<b>Images created or collected by E.E. Thomas of Hubam clover fields. September 22, 1924.</b>
Box 53, Folder 44	<b>Image of Mt. Rubidoux on Easter Sunday. 1913.</b>
Box 53, Folder 45	<b>CD-ROM containing images taken by James Theophilus Barrett of Mt. Rubidoux, the CES garden, residences, and buildings, and landmarks in Riverside including Riverside Cement Works and the house of Louis Rubidoux. 1913-1914, undated.</b>
Box 53, Folder 46	<b>Negatives collected by John Gabbert for the Lawton Project on the history of CES. undated.</b>
Box 53, Folder 50	<b>Images and descriptions of CES buildings and land (photocopies). circa 1935-1940, 1980, undated.</b>

---

**Lantern slides. Sub-series 8.3. 1904-1938, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains lantern slides documenting the main Citrus Experiment Station (CES) building and other facilities, the original CES laboratory on Mt. Rubidoux, CES faculty and staff, and CES land, fields, and orchards. Slides used by Leon D. Batchelor for his address at the CES 50th anniversary celebration are also included.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 62	<b>Exterior views of the main CES building. undated.</b>
Box 62	<b>Exterior views of the former CES building located on Mt. Rubidoux. Includes image of a farmers' meeting on Mt. Rubidoux. circa 1914.</b>

---

---

Box 62	<b>Image of a tractor management class at CES. 1918.</b> <b>Note</b> To view additional copies of this image, please consult Sub-series 8.2, Black-and-white photographs: Box 53, Folder 13 and Series 9, Citrus Experiment Station anniversary celebrations.
Box 62	<b>Views taken from Mt. Rubidoux of CES experimental groves and orchards. undated.</b>
Box 62	<b>Views of CES land. undated.</b>
Box 62	<b>Group portrait of CES faculty. 1914.</b>
Box 62	<b>Exterior views of the main CES building. 1921-1938, undated.</b>
Box 62	<b>Group portraits of CES faculty and staff. 1929-1933.</b>
Box 62	<b>Image of Eureka lemons fertilized with potash and blood. undated.</b>
Box 62	<b>Images of fertilized and unfertilized trees in an orchard. undated.</b>
Box 62	<b>View of a CES barn. undated.</b>
Box 62	<b>Image of a horse and carriage. undated.</b>
Box 62	<b>Aerial view of CES land. undated.</b>
Box 62	<b>Views of CES fields and orchards at Mt. Rubidoux. circa 1908-1910.</b>

---

**Glass plate negatives. Sub-series 8.4. 1904-1929, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains glass plate negatives with views of crops, groves, orchards, buildings, and the original Citrus Experiment Station (CES) laboratory located on Mt. Rubidoux. Other images pertain to fieldwork and experiments conducted by CES staff and students. Images created or collected by E.E. Thomas depict orange and lemon trees, and alfalfa, barley, Hubam clover, and cowpea fields. Images pertaining to experiments with Eureka lemon, marsh grapefruit, Valencia orange, and Washington navel orange trees are also included.

For black-and-white photographs created or collected by E.E. Thomas, please consult Sub-series 8.2, Black-and-white photographs.

**Sub-series Arrangement**

This sub-series is arranged sequentially by box and folder number.

Box 54	<b>Images created or collected by E.E. Thomas of Valencia trees located at CES and in Whittier, La Habra, and Garden Grove, California. 1916-1919.</b>
Box 54	<b>Views of Hubam Clover fields. 1924-1928.</b>
Box 54	<b>Images created or collected by E.E. Thomas of alfalfa fields. 1924-1928, undated.</b>
Box 55	<b>Images created or collected by E.E. Thomas of alfalfa fields. 1924-1928, undated.</b>
Box 56	<b>Images created or collected by E.E. Thomas of alfalfa fields. 1924-1928, undated.</b>
Box 56	<b>Views created or collected by E.E. Thomas of treatment plots showing growth of barley and other crops located at Kearney Vineyard in Fresno, California. 1920.</b>
Box 56	<b>Views created or collected by E.E. Thomas of cowpea fields. October 19, 1922.</b>
Box 56	<b>Views of crops. Envelope labeled "imperial exht". January 17, 1929.</b>
Box 57	<b>Images created or collected by E.E. Thomas of barley fields and barley plants in pots. 1920-1928.</b>
Box 58	<b>Images created or collected by E.E. Thomas of barley fields and barley plants in pots. 1920-1928.</b>
Box 58	<b>Images created or collected by E.E. Thomas of orange trees at Eureka Grove, Oakley Grove (Riverside), and East Whittier, California. 1917-1924.</b>
Box 58	<b>Images created or collected by E.E. Thomas of lemon trees at Leffingwell Ranch, Arlington Heights, and Rubidoux, California. 1916, 1919.</b>
Box 58	<b>View of a plot filled with water. September 9, 1927.</b>
Box 58	<b>Image created or collected by E.E. Thomas of a box created for the study of citrus root fungus. April 9, 1914.</b>
Box 58	<b>Images created or collected by E.E. Thomas of trees at Gafford's Grove and J.M. Mylne's Grove. 1924.</b>

---

Box 58	<b>Views taken from Mt. Rubidoux of CES experimental groves and orchards. 1904-1910.</b>
Box 58	<b>Exterior views of the original CES laboratory located on Mt. Rubidoux. 1909-1912.</b>
Box 58	<b>Exterior and interior views of CES lath houses. 1911.</b>
Box 59	<b>Image of a worker weighing fruit picked from experiment trees at CES. Spring 1912.</b>
Box 59	<b>View of navel orange blossoms. 1910.</b>
Box 59	<b>View of flowers. undated.</b>
Box 59	<b>Image of CES summer class students conducting fieldwork. 1913.</b>
Box 59	<b>View of Woodson's Orange Orchard in Corning, California. May 24, 1914.</b>
Box 59	<b>Images of a yuba tractor and plow station orchard. March 1915.</b>
Box 59	<b>View of Limoneira Company lemon trees. April 22, 1915.</b>
Box 59	<b>Exterior views of the Limoneira Ranch. 1915.</b>
Box 59	<b>Exterior view of the original CES building on Mt. Rubidoux. March 1915.</b>
Box 59	<b>View of the parent Washington navel orange tree. circa 1916.</b>
Box 59	<b>View of the oldest sweet orange tree in Northern California. 1915.</b>
Box 59	<b>Exterior views of the CES main building. 1917-1920, undated.</b>
Box 59	<b>Exterior view of the director's residence at CES. January 1920.</b>
Box 59	<b>Exterior view of CES barns. January 1920.</b>
Box 59	<b>Image of men conducting fieldwork in an orchard. undated.</b>
Box 59	<b>Image of a horse and carriage on a field. undated.</b>
Box 59	<b>Group portrait of three men. undated.</b>
Box 59	<b>View of CES land from Riverside highlands. undated.</b>
Box 59	<b>Portrait of Thomas A. Garay. undated.</b>
Box 59	<b>Interior view of a CES building. undated.</b>
Box 60	<b>Views of Eureka lemon trees before pruning. October 1915.</b>
Box 60	<b>Views of Eureka lemon trees after pruning. October 22, 1915.</b>
Box 60	<b>View of a tent covering 7 acres of lemon trees at Flagler Ranch in Corona, California. May 17, 1915.</b>
Box 60	<b>Cluster of 7 Eureka lemons from the Chase Plantation in Corona, California. March 1916.</b>
Box 60	<b>View of a lemon curing and pickling house at Flagler Ranch in Corona, California. May 17, 1915.</b>
Box 60	<b>Image of an employee picking lemons from a tree under a tent at Chase Plantation in Corona, California. May 17, 1915.</b>
Box 60	<b>Image of an employee recording the weight of Eureka lemons produced during a regular monthly pick. May 17, 1915.</b>
Box 60	<b>Views of marsh seedless grapefruit trees in Highgrove, California. 1916.</b>
Box 60	<b>View of the first marsh tree planted in California at the residence of J.E. Cutter in Riverside. June 1916.</b>
Box 60	<b>Images of Valencia orange bud sticks with fruit attached and detached. April 16, 1915.</b>
Box 61	<b>Images of employees performing record-keeping duties for Washington navel oranges trees. May 17, 1915.</b>
Box 61	<b>View of the parent Washington navel orange tree in Riverside, California. March 1916.</b>
Box 61	<b>Views of Washington navel trees before topping. October 1915.</b>
Box 61	<b>Views of Washington navel trees after topping. October 1915.</b>
Box 61	<b>View of pump lanes used for raising irrigation water to a higher level. May 17, 1915.</b>
Box 61	<b>Image of a shelter containing instruments used to record climate conditions. May 17, 1915.</b>
Box 61	<b>View of a tangerine tree at Vivienda Ranch in Riverside, California. 1911.</b>

---

**Nitrate negatives. Sub-series 8.5. 1808-1950, undated.**

**Sub-series Scope and Content Summary**

This sub-series contains nitrate negatives of Citrus Experiment Station (CES) staff, faculty, and students, aerial and exterior views of CES buildings, and CES land and orchards. Images created or collected by E.E. Thomas show alfalfa, cotton, oat, and other crops. Loose materials and negatives in the Kodak nitrate negative albums that were created or collected by E.R. Parker depict avocado, walnut, and citrus crops, some of which show injuries, deficiencies, and diseases. Kodak nitrate negative albums with images of trips to Italy and France are also included. Negatives created by C.S. Pomeroy and A.D. Shamel show marsh grapefruit, Washington navel orange, date palm, and Valencia orange trees. Filmstrips depict images of land and trees in Santa Barbara, avocado seed mutations, and Capistrano weather records. [Boxes 44-47]

For preservation and safety concerns, the use of nitrate negatives is restricted. Please contact Special Collections & Archives for additional information regarding this material.

**Series 9. Citrus Experiment Station anniversary celebrations. 1933-2007.**

**Series Scope and Content Summary**

This series contains correspondence, memorabilia, programs, clippings, and other material regarding the 20th, 50th, 75th, and 100th anniversaries of the Citrus Experiment Station (CES). Materials regarding the Citrus Research Center and Agricultural Experiment Station (CRC-AES) anniversaries reflect the official name change instituted in 1961. Topics include the history of CES, past and future research projects, achievements, and celebration events. Materials regarding the 100th anniversary of the Agricultural Experiment Station (AES) are also included.

**Series Arrangement**

This series is arranged sequentially by box and folder number.

Box 1, Folder 21	<b>Speeches delivered at the 197th meeting of the Synapsis Club on June 5, 1933 commemorating the 20th anniversary of CES (three copies); <i>Riverside Daily Press</i> clipping regarding CES 20th anniversary. 1933.</b>
Box 2, Folder 1	<b>Correspondence, memorandums, and meeting notes regarding the 50th anniversary of CES. 1956-1957.</b>
Box 2, Folder 2	<b>Committee and invitation lists regarding the 50th anniversary celebration of CES. circa 1956-1957.</b>
Box 2, Folder 3	<b>Reviews and typescripts of speeches given at the CES 50th anniversary celebration. February 14, 1957.</b>
Box 2, Folder 4	<b>Program (three copies), articles, invitations, and twenty-five congratulatory letters addressed to T.A. Lombard regarding the CES 50th anniversary celebration. 1957.</b>
Box 2, Folder 5	<b><i>Press-Enterprise</i> edition regarding the 50th anniversary of CES (three copies). February 14, 1957.</b>
Box 2, Folder 7	<b>Special program, invitation, flier, and <i>75 Years of Citrus Research</i> informational packet (three copies of each). 1982.</b>
Box 2, Folder 8	<b><i>Press-Enterprise</i> article and audiocassette regarding the 75th anniversary of CES. 1982.</b>
Box 19, Folder 27	<b>Assembly concurrent resolution congratulating CES on its 50th anniversary. January 21, 1957.</b>
Box 41	<b>Tote bag (two) from the 100th anniversary celebration of the AES. circa 2007.</b>
Box 41	<b>T-shirt (three) from the 100th anniversary celebration of the AES. circa 2007.</b>
Box 41	<b>Hat (two) from the 100th anniversary celebration of the AES. circa 2007.</b>
Box 41	<b>Flier regarding a series of lectures being held in honor of the 100th anniversary of CRC-AES. circa 2007.</b>
Box 41	<b>Poster regarding the CRC-AES 100th anniversary gala and symposium. February 2007.</b>
Box 41	<b>Poster regarding the AES 100th anniversary kickoff BBQ and open house. April 22, 2006.</b>
Box 42, Folder 1	<b>Special edition of the <i>Chronicle of the University of California</i> regarding the 100th anniversary of the CRC-AES (three copies). Fall 2006.</b>

---

- 
- Box 42, Folder 2 **Press kit regarding the 100th anniversary celebration of the CRC-AES. Contains brochures, pamphlets, programs, pins, and other material. circa 2007.**
- Box 42, Folder 3 **CD-ROM created by the UC Riverside Office of Strategic Communications regarding the 100th anniversary of CES. February 2007.**
- Box 42, Folder 4 **Folder bearing the CRC-AES 100th anniversary celebration logo (two copies). circa 2007.**
- Box 42, Folder 5 ***The Advantage*, Vol. 1, No. 1 published by the UC Riverside College of Natural and Agricultural Sciences. Includes an article regarding the CRC-AES centennial gala (two copies). Summer 2007.**
- Box 42, Folder 6 **Article entitled *AES Centennial 100, UC Riverside Marks a Century of Agricultural Innovation - Still Thriving in an Urban Empire* from *California Agriculture*, Vol. 6, No. 4 (two reprints). 2006.**
- Box 42, Folder 7 **Program from the CRC-AES centennial celebration (three copies). 2007.**
- Box 42, Folder 8 **Timeline regarding key events in the history of the CRC-AES from 1907-2007 (three copies). 2007.**
- Box 42, Folder 9 **Invitation and program (two copies) for the CRC-AES Centennial Symposium and Gala. 2007.**
- Box 42, Folder 10 **Brochure regarding past and future endeavors of the Agricultural Experiment Station (two copies). circa 2007.**
- Box 42, Folder 11 **Flier for the UC Riverside Agricultural Experiment Station 100th anniversary open house celebration (two copies). April 21, 2007.**
- Box 42, Folder 12 **Program for the AES 100th anniversary kickoff BBQ and open house (two copies). April 22, 2006.**
- Box 42, Folder 13 **Bookmarks from the CRC-AES 100th anniversary celebration. circa 2007.**

Series 10. **Maps, site drawings, and other oversize materials. 1888-1952, undated.**

**Series Scope and Content Summary**

This series contains oversized photographs, floor and site plans, blueprints, and topographical maps and surveys pertaining to Citrus Experiment Station (CES) buildings, facilities, and land. Materials primarily relate to prospective CES laboratory sites and proposals for the construction and improvement of CES buildings. Oversized photographs depict CES buildings, aerial views of CES land, watercolor illustrations regarding citrus and subtropical fruit, and a tractor management class.

For additional blueprints and topographical surveys related to CES facilities, buildings, and prospective land sites, please consult Sub-series 1.3, Facilities.

For additional black-and-white photographs, please consult Sub-series 8.2, Black-and-white photographs.

**Series Arrangement**

This series is arranged sequentially by box and folder number.

- Box 69 **Black-and-white photograph of the CES main building. 1917.**
- Note**
- To view an additional copy of this image and other photographs of the CES main building, please consult Sub-series 8.2, Black-and-white photographs: Box 50, Folder 6.
- Box 69 **Black-and-white photograph of a tractor management class at CES. 1918.**
- Note**
- To view additional copies of this image, please consult Sub-series 8.2, Black-and-white photographs: Box 51, Folder 13 and Sub-series 8.3, Lantern slides: Box 62.
- Box 69 **Photographic reproductions of watercolor illustrations of subtropical fruits of Southern California painted by USDA artists (framed). undated.**
- Box 69 **Photographic reproductions of watercolor illustrations of navel oranges painted by USDA artists (framed). undated.**
- Box 69 **Black-and-white photograph of an airplane view of CES land and buildings taken by the US Army Air Corps (two copies). 1928.**
-

---

Box 69	<b>Black-and-white photograph of tank experiments and greenhouses at CES. 1928.</b> <b>Note</b> To view an additional copy of this image and other photographs of CES greenhouses, please consult Sub-series 8.2, Black-and-white photographs: Box 50, Folder 1.
Box 69	<b>Black-and-white photograph of a tree with brown rot fruit. February 20, 1913.</b>
map-case A13, Folder 2	<b>Black-and-white aerial photographs of CES buildings and land. undated.</b>
map-case A13, Folder 2	<b>Site plan of Valencia Heights tract no. 2371. July 1913.</b>
map-case A13, Folder 2	<b>Site plan of the North East Pomona tract and surrounding areas. undated.</b>
map-case A13, Folder 2	<b>Site plan of lot 23 and a portion of lot 24 on tract no. 2371 in Los Angeles County. December 1, 1913.</b>
map-case A13, Folder 2	<b>Topographical survey of the Riverside Improvement Company lands within boundaries of Rancho La Sierra (blueline print). 1888.</b>
map-case A13, Folder 2	<b>Black-and-white aerial photographs of CES and UC Riverside buildings and surrounding land. undated.</b>
map-case A13, Folder 2	<b>Site plans and correspondence regarding proposed CES greenhouses for the Division of Soils and Plant Nutrition. Includes lists of specifications for construction and equipment. February 1924-August 26, 1949, undated.</b>
map-case A13, Folder 2	<b>Site plan of the Southern Pacific Company lot 22 located in Highgrove, California. June 1915.</b>
map-case A13, Folder 2	<b>Topographical survey of proposed overhead irrigation and drainage development located west of the CES main building. undated.</b>
map-case A13, Folder 2	<b>Site plan of land at Box Spring Station near Riverside. September 1934.</b>
map-case A13, Folder 2	<b>Topographical survey of the CES overhead irrigation system on field 6. February 2, 1939.</b>
map-case A13, Folder 2	<b>Topographical map regarding soil at the Riverside tract. undated.</b>
map-case A13, Folder 2	<b>Blueprint of the furniture for the CES greenhouse laboratory. February 19, 1924.</b>
map-case A13, Folder 2	<b>Blueprints of the CES insecticide building and laboratories. March-April 1946.</b>
map-case A13, Folder 2	<b>Development plans of the UC Riverside Graduate School of Tropical Agriculture and CES. April 4, 1931.</b>
map-case A13, Folder 2	<b>Blueprints regarding proposed improvements for CES for the domestic water supply and derrick and bridge of the pump house and the reinforced concrete reservoir. February-March 1916.</b>
map-case A13, Folder 2	<b>Blueprint regarding the plan and elevation of CES head houses. February 14, 1924.</b>
map-case A13, Folder 2	<b>Topographical survey of the CES site (two copies). undated.</b>
map-case A13, Folder 3	<b>Topographical maps of CES. undated.</b>
map-case A13, Folder 3	<b>Topographical survey regarding proposed improvements for the CES irrigation and water supply systems. 1915-March 1916.</b>
map-case A13, Folder 3	<b>Floor plan of the main floor of the CES main laboratory building (two copies). April 1916.</b>
map-case A13, Folder 3	<b>Floor plan regarding alterations to the basement floor plan of the CES administrative building (two copies). August 1952.</b>
map-case A13, Folder 3	<b>Floor plan of the basement floor of the CES main laboratory building (three copies). April 1916.</b>
map-case A13, Folder 3	<b>Floor plan regarding alterations to the lower and upper floors of the south wing of the CES building. August 1952.</b>
map-case A13, Folder 3	<b>Floor plan of the south wing of the CES laboratory building (two copies). April 1916.</b>

---



map-case A13,  
Folder 3  
map-case A13,  
Folder 3  
shelf :Vault

**Floor plan regarding alterations to the first and second floor of the CES administrative building. August 1952.**

**Floor plan of the north and south wing of the CES laboratory building. April 1916.**

**Thacher's calculating instrument used by former CES staff member and emeritus professor of soil science and chemistry Dr. Albert Page. undated.**

Box 49

**35mm metal slide frames and a wood box used for projection slide storage. undated.**