

Academic Portfolio

Theodore W. Sammis

Professor

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Education:

B.S. 1966 University of California, Davis

Major: Soil, Water, and Engineering

M.S. 1972 University of Arizona

Major: Hydrology

Ph.D. 1974 University of Arizona

Major: Hydrology

Training:

Certified Irrigation Auditor, NMSU 2005.

Post-graduate Experience:

- Professor, Department of Agronomy and Horticulture, New Mexico State University, Las Cruces, NM. 1989 to present. Name change in 2005 to Plant and Environmental Science Department.
- Joe Fernandez Chair 2006-2009. Plant and Environmental Science Department, New Mexico State University, Las Cruces, NM
- Associate Professor, Department of Agronomy and Horticulture, New Mexico State University, Las Cruces, NM. 1986-1989.
- Associate Professor, Department of Agriculture Engineering 1984-1986.
- Assistant Professor, Department of Agriculture Engineering 1976-1984

Administrative Experience:

- New Mexico State Climatologist and Director, New Mexico State University (1986-present)
<http://weather.nmsu.edu>
 - a. Set up the State Climatology Program and Created the New Mexico Climate Center.
 - b. Oversee the collection and processing of 160 climate stations.
 - c. Created and published The New Mexico Climate Newsletter:
Articles written for newsletter:
Water use of open canopy orchards [Newsletter summer 2008](#)
Frost Dept in New Mexico and the United States [Newsletter spring 2008](#)
Buyer of climate data beware [Newsletter fall 2007](#)
Climate at the New Mexico Farm & Ranch Heritage Museum [Newsletter fall 2007](#)
Smart Irrigation Controllers [Newsletter fall 2007](#)
Tornadoes in New Mexico [Newsletter summer 2007](#)
The Sociology behind the Cooperative Climate Volunteers program [Newsletter summer 2007](#)
Modernizing the Cooperative Observer Network of climate stations [Newsletter Spring 2007](#)
Water Climate and Agriculture [Newsletter Winter 2002](#)
Global warming and its impact on New Mexico [Newsletter Fall 2002](#)

Where There's Fire There's Smoke [Newsletter Fall 2001](#)

Current Past and Future Climate of New Mexico [Newsletter Fall 2000](#)

Extinguished For Now NM 2000 Fire Season-Making your Home Safe from Wild Land Fires [Newsletter Spring 2000](#)

When It Rains, It Pours-Estimating the 100 Year Flood [Newsletter Fall 1999](#)

- d. Created and helped acquire resources for the Agronomy and Horticulture Faculty and Staff appreciation award.
- e. Served as a member of the State Drought Monitoring Committee that reports to the Drought Task Force on the status of drought in New Mexico.
- f. Developed a state initiative to fund the expansion of the State Climatology office including funds to hire an assistant state climatologist and programmer.
- g. Successfully nominated faculty for their contributions to program: John Mexal -CAHE Outstanding Research Award 2002
- h. Visiting Scientist in the New Mexico Academy of Scientist speaker program.
- i. Participated as a SCIED advisor to the public school system in Las Cruces New Mexico 1992-1996

Teaching:

- Teaching appointment has averaged 22% to 30% since 1976.
- Courses Currently Taught:
 - SOILS 476 **Irrigation and Drainage**, (3 cr.). Irrigation design and management principles.
 - ES 470 **Environmental Impacts of Land Use**, (4 cr.). Capstone course in environmental science including material on environmental impact statements, use of air, water quality, and wetland models in evaluation environmental decisions.
 - A/H/S 620 **Instrumentation in Agronomy**, (3 cr.). Use of instruments in all research areas of soil, genetic engineering and agronomy and horticulture.
- Courses Previously Taught:
 - A/H/S 505 **Research Orientation and Perspectives**, (3 cr-16 semesters). Training in preparation of research proposals for agriculture, organization and presentation of research results (oral and poster), and interpretation and understanding of research results.
 - SOILS 350 **Soils and Land Use**. A course for geography students on the impact of soils on environmental problems.
 - Short Courses: **Small Scale Irrigation System Design and Operation** an International Short Course 1985-1986 Las Cruces, New Mexico (1 wk)
 - AEN 100 **Introduction to Agricultural Engineering**. An introductory course in Agricultural Engineering
 - AEN 350 **Soil and Water Conservation**. Rainfall runoff, dam design, and soil conservation method
- Advising:
 - I advised students in both the Agricultural Engineering program, and the Soils program in Agronomy and Horticulture.
- Teaching innovations:
 - a. A/H/S 505: Students developed a research proposal, learned to present oral and poster presentations, critically evaluate literature, and learned to use equipment and tools for presentations.

b. A/H/S 620: Students development of 20 instrumentation pages on the internet.
http://weather.nmsu.edu/teaching_Material/soil698/

- Publications related to teaching: 4 journal articles, 1 proceedings
 - a. Ulery, A.L., T.W. Sammis, J.G. Mexal. 2004. A Mentoring Program that Helps Untenured Faculty Navigate the Academic Maze. NACTA. , p. 46-50
 - c. Mexal, J.G., T.W. Sammis and A.L. Ulery. 2003. An academic is being beaten! Proc. Science, Engineering, and Technology Education Conference, Las Cruces, NM Jan. '03.
<http://spacegrant.nmsu.edu/conference/2003/>
 - d. Sammis, T. J., J.G. Mexal, M. O'Connell and V. Gutschick. 2003. Instrumentation class develops interdisciplinary skills. NACTA journal. 47, p. 56-60
 - e. Sammis, T.W. and J.G. Mexal. 1996. Teaching the components of agricultural research. J. Nat. Res. Life Sci. Educ. 25:58-61.
 - f. Sammis, T.W., J. G. Mexal and T. Jones. 1996. Scientist Teach Science in Elementary Schools. J. Nat. Res. Life Sci. Ed., Vol. 25:131-136.
- Graduate Student Training:
 - a. Completed: 6 M.S., and 4 Ph.D. students
 - b. Currently supervising 1 Ph.D. student and co-advising 1 M.S. student.

Research:

- Research appointment has averaged 70% to 78% since 1976.
- Grants have totaled over \$1,157,000 since 1976

Source	Project	Years	Amount
USDA specialty crops	Advanced sensing and management	2008-2011	\$1,666,000
USDA air quality	Agriculture dust	2003-2010	\$950,000
Pecan Initiative	Et and modeling of pecans	2001-2006	\$320,000
Las Cruces Wastewater	Land application of wastewater	2001-2002	\$ 24,000
EPA	Dust from Agriculture production	2003-2006	\$ 100,000
International Arid Lands Consortium	Determination of nitrogen leaching	1997-1999	\$ 63,000
International Arid Lands Consortium	Land application of wastewater-Ismailia, Egypt	1999	\$ 75,000
Onion commission	Onion Et	1997	\$ 35,000
Chile Initiative	Chile water use and Phytophthora	1996	\$ 35,000
WRRRI	Water use of crop in New Mexico	1979-1983	\$ 150,000
USDA	Atrazine water transport	1991	\$ 50,000
USDA	Cotton simulation model	1992	\$ 50,000
WRRRI	Pecan Et	1988	\$ 35,000

Publications:

Total	=	161
Refereed	=	87
Proceedings	=	23
Other	=	34

Consulting = 2
CES/AES = 20

- Selected significant research publications (see addendum for complete list):
 - a. Wang, J., T. W. **Sammis**, V. P. Gutschick, M. Gebremichael, and D. R. Miller. 2009. Sensitivity Analysis of the Surface Energy Balance Algorithm for Land (SEBAL). Transaction of the American Society of Agricultural and Biological Engineers. 52(3):801-811.
 - b. **Sammis**, T. W., J. G. Mexal and D. Miller. 2004. Evapotranspiration of flood irrigated pecans. Agricultural Water Management. 69(3):179-190
 - c. Al-Jamal, M. S., T. W. **Sammis**, S. Ball. 2001. A case study for adopting the chloride technique for evaluating irrigation efficiency and nitrate-nitrogen to groundwater in farmers' fields. Applied Engineering in Agriculture. 17(5):601-610
 - d. **Sammis**, T. W. and J. G. Mexal. 2000. Irrigation water management to sustain agriculture in the desert. New Mexico Academy of Science. 39:301-310
 - e. Xie, Jinhue, E. S. Cardenas, T. W. **Sammis**, M.M. Wall, D. L Lindsey, L.W. Murray.1999. Effects of irrigation method on chile pepper yield and Phytophthora root rot incidence. Agricultural Water Management. 42:127-142
 - f. Mott, P., T. W. **Sammis** and R. Jackson. 1992. Automatic weather data collection and processing. Computers and Electronics in Agriculture. 7:337-345
 - g. **Sammis**, T.W., W. Williams, D. Smeal, and C.E. Kallsen. 1986. Effect of soil moisture stress on leaf area index evapotranspiration and modeled soil evaporation and transpiration. Transaction of the American Society of Agricultural Engineers. 29(4):956-961.

Service:

- Served as the advisor to the Agricultural Engineering Student Chapter of ASAE at NMSU
- Developed and maintained the Agronomy and Horticulture web server. <http://aghort.nmsu.edu>
- Published "The Agronomy Department Newsletter" (4 years)
- Initiated a region research coordinating committee on Climatic Data Applications in Irrigation Scheduling and Water Conservation and maintained the home page <http://weather.nmsu.edu/wcc202/> (5 years); President 1 year
- Serve on the regional research committee on Climatic Data and Analyses for Applications in Agriculture and Natural Resources and maintained the home page <http://weather.nmsu.edu/wrcc102/> (25years); President 4 years
- Chair, AGHT Faculty and Staff Appreciation Award Committee (2000 – 2009)
- Recruiting: Presented programs in elementary, and middle schools on climate and instruments in climatology.
- Developed recruiting brochure for graduate students in the Agronomy and Horticulture Department.
- Presented 4-day short course on climate to senior citizen's group.
- Advisor to the Agricultural Engineering Club for 4 years.
- Answered over the phone 1,500 climate related questions as State Climatologist.
- Presented climate instrumentation demonstration to 800 4th grade students in Las Cruces N.M.
- Developed over 15 computer interactive programs for displaying climate data and using the climate data to calculate irrigation scheduling, heat unit calculations, cooling unit calculations, growing degree day calculations and other climate based decision models in agriculture, engineering, and entomology. The programs are on the climate center web page at <http://weather.nmsu.edu/>.

- Publications (selected Cooperative Extension Service CES publications)
 - a. Mexal, J.G., E.A. Herrera, T. W. **Sammis**, and W.H. Zachritz, II. 2001. Analyzing the importance of New Mexico and West Texas pecan industry through non-traditional values. *The Pecan Grower*. 13(1):42-43.
 - b. **Sammis**, T. W., J. Mexal, W. Zachritz, II, and R. Cain. 2001. Making your home safe from wildland fire. New Mexico State University Cooperative Extension Service Guide H708, 2 p.
 - c. Joe Corgan, M. Wall, C. Crammer, T. W. **Sammis**, B. Lewis, J. Schroeder. 2000. Bulb onion culture and management. NMSU CES Circular 563 p1-16
 - d. **Sammis**, T. W. and Estaban Herrera, 1999 Estimating Water Needs for Pecan Trees NMSU Guide H-636
 - e. **Sammis**, T. W. and Estaban Herrera, 1994 Using the NMSU Bulletin board for irrigation scheduling of pecans NMSU CES Guide H638
- Presentations (selected CES-type presentations)
 - a. Pecan Conference NM, 5 programs including:
 1. "Fertigation for Pecan orchards Proceedings"
 2. "Scheduling irrigations for Pecans using Climate Data."
 3. "Adjustment of Closed Canopy Crop Coefficients of Pecans for Open Canopy Orchards"
 - b. Apple Conference. (Cold-hardiness Protection)
 - c. Crop water use of onions. 6th International Micro-irrigation congress
 - d. Development of a trickle irrigated scheduling model. Fourth International Micro-irrigation congress
 - e. Yield of alfalfa as influenced by irrigation. Western Alfalfa Improvement Conference, NM
 - f. Drainage system designs as affected by deficit irrigation under shallow ground water conditions. Symposium on Land Drainage for Salinity Control in Arid and Semi-Arid Regions in Egypt
 - g. Reference Evapotranspiration prediction using simulated and measured climate. International Conference on evapotranspiration and irrigation scheduling.
- Gama Sigma Delta chapter president, 1 year

International Activities:

- Egypt (1999 to 2001)
 - a. Wastewater land application project in Ismailia, Egypt b. Grants = \$75,000
 - b. Egypt (1998) Improving the Efficiency of Water Use in Arid Lands Agriculture.
- Ecuador (1990) Visited Agriculture research programs.

Memberships:

- Agronomy Society
- American Society of Agricultural Engineers
- New Mexico Academy of Science
- Gamma Sigma Delta

**Addendum
Publications by Category**

Teaching:

Sammis, T.W., J.G. Mexal, M. O'Connell, and V.P. Gutschick. 2003. Instrumentation class develops

- interdisciplinary skills. NACTA Journal. 47:56-60.
- Mexal, J.G., T.W. Sammis, and A.L. Ulery. 2003. An academic is being beaten! Precision Science, Engineering, and Technology Education Conference, Las Cruces, NM. January 2003. <http://spacegrant.nmsu.edu/conference/2003/>
- Sammis, T.W. and J.G. Mexal. 1996. Teaching the components of agricultural research. Journal of Natural Resources and Life Sciences Education. 25:58-61.
- Mexal, J.G., T.W. Sammis, T. Jones. 1996. Scientists teach science in elementary schools: case studies. Journal of Natural Resources and Life Sciences Education. 25:131-136.
- Sammis, T.W., J.G. Mexal, J.T. Fisher. 2006 Description of a University faculty evaluation system NACTA Journal. 50(1):44-51
- Sammis T.W., M.K. Shukla, J.G. Mexal, P.W. Bosland, and L.A. Daugherty. 2009. Improving the Chile Industry of New Mexico through Industry, Agriculture Experiment Station, and Cooperative Extension Service Collaboration: A Case Study. Journal of Extension 47 (1): on line at <http://www.joe.org/joe/2009february/rb4.php>
- St. Hilaire, R., T. W. Sammis, J. G. Mexal. 2009. Integrating Hoop House Construction and Operation into an Undergraduate General Education Horticulture Class. HortTechnology 19: 445-451.

Agriculture Experiment Station:

- Corgan, Joe, M. Wall, C. Cramer, T. Sammis, B. Lewis, J. Schroeder. 2000. Bulb onion culture and management circular 563.
- Wang J., A. L. Hiscox, D. R. Miller, T. W. Sammis, W.i Yang, and B. A. Holmén. 2008. A Note on the Measurement of Dust Emissions from Moving Sources in Agricultural Field Operations Research Report 767.

Cooperative Extension Service:

- Mexal, J.G., E.A. Herrera, T.W. Sammis, and W.H. Zachritz, II. 2003. Non-commensurable values of the pecan industry. NMSU CES Guide H-654.
- Herrera, E.A., T.W. Sammis. 2001. Water Management in Pecan Orchards. NMSU Guide H653.
- Herrera, E.A., T.W. Sammis. 2000. Leaching Requirements of Pecan and Fruit Trees. NMSU Guide H-644.
- Sammis, T.W., J.G. Mexal, W. Zachritz, II., R. Cain. 2001. Making your home safe from wildland fire. NMSU Guide H708.
- Herrera, E.A., T.W. Sammis. 2000. Flood Irrigation in Pecan Orchards. NMSU Guide H635.
- Sammis, T.W., E.A. Herrera. 1999. Estimating water needs for pecan trees. NMSU Guide H636.
- Herrera, E.A., T.W. Sammis. 1994. Planning and operating pecan orchards with microspray irrigations systems NMSU CES Cir 542.
- Herrera, E.A., T.W. Sammis. 1994. Fertigation for pecan orchards. NMSU Guide H642.

Waste & Wastewater Handling:

- Mexal, J.G., W.H. Zachritz, and T.W. Sammis. 2001. Trees are the answer: to wastewater treatment for small communities. p. 327-335. IN Natl. Nur. Proc.-1999, 2000 and 2001. USDA-FS, Rocky Mountain Research Station, RMRS-P-24.
- Zachritz, W.H., J.G. Mexal, and T. Sammis. 2001. Land application of wastewater in arid regions: the challenge of balancing plant water requirements and nitrogen uptake. Proceedings 2001 Rio Grande Environmental Conf., Weslaco, TX. April 26-28, 2001.
- Saucedo, T.W. Sammis, G.A. Picchioni, and J.G. Mexal. 2006. Wastewater application and water use of Larrea tridentate. Agricultural Water Management. 82 (3): 343-353.
- Ruiz A., T.W. Sammis, G.A. Picchioni, and J.G. Mexal. 2006. Irrigation scheduling protocol for treated

industrial effluent in the Chihuahuan desert. *Agricultural Water Management*. 98(2):123-132.

Pecans:

- Sammis, T.W., W.R. Riley, and D.G. Lugg. 1988. Crop water stress index of pecans. *Applied Engineering in Agriculture*. 4(1):39-45.
- Mexal, J.G., E.A. Herrera, T.W. Sammis, and W.H. Zachritz, II. 2001. Non-commensurable values of the pecan industry, p. 127-131. In 35th Western Pecan Conference Proceedings, Las Cruces, NM March 4-6, 2001.
- Mexal, J.G., E.A. Herrera, T.D. Sammis, and W.H. Zachritz, II. 2001. Analyzing the importance of New Mexico and West Texas pecan industry through non-traditional values. *The Pecan Grower*. 13(1):42-43.
- Mexal, J.G., E.A. Herrera, T.W. Sammis, and W.H. Zachritz, II. 2001. Pecans: good for you, good for your community. Benefits that can't be measured in dollars. *Pecan South*. 34(7): 26-29.
- Sammis, T.W., and E.A. Herrera. 1989. Use of Infrared gun to monitor irrigation methods. *Pecan South*. 123 (1):16-18.
- Sammis, T.W., J.G. Mexal, and E.A. Herrera. 2002. Daily cycle of evapotranspiration from pecan trees. *Pecan South*. 35(6):32-38.
- Sammis, T.W., J.G. Mexal, and D.R. Miller. 2004 Evapotranspiration of flood irrigated pecans. *Agricultural Water Management*. 69(3):179-190.
- Kallestad, J.C., T.W. Sammis, J.G. Mexal, and J. White. 2006. Monitoring and management of pecan orchard irrigation: a case study. *HortTechnology*. 16(4):1-7.
- Wang, J., D.R. Miller, T.W. Sammis, V.P. Gutschick, L.J. Simmons, and A.A. Andales. 2007. Energy balance measurements and a simple model for estimating pecan water use efficiency. *Agricultural Water Management*. 91:92-101.
- Wang, J., T.W. Sammis, A.A. Andales, L.J. Simmons, V.P. Gutschick, and D.R. Miller 2007. Crop coefficients of open-canopy pecan orchards. *Agricultural Water Management*. 88:253-262.
- Kallestad, J.C., T.W. Sammis, J.G. Mexal, and V.P. Gutschick. 2007. The impact of prolonged flood-irrigation on leaf gas exchange in mature pecans in an orchard setting *International Journal of Plant Production* 1(2):163-177.
- Kallestad, J.C., T.W. Sammis, and J.G. Mexal. 2008. Extent and duration of gas phase soil oxygen depletion in response to flood irrigations in two pecan orchards. *Applied Engineering in Agriculture*. 24(1):31-40.
- Kallestad, J.C., T.W. Sammis, and J.G. Mexal. 2008. Comparison of galvanic and chemi-luminescent sensors for detecting soil air oxygen in flood-irrigated pecans. *Soil Science Society of America Journal*. 72(3):758-766.
- Kallestad, J.C., J.G. Mexal, and T.W. Sammis, and R. Heerema. 2008. Development of a simple irrigation scheduling calendar for mesilla valley pecan growers. *HortTechnology*. 18(4):714-725.
- Simmons, L.J., J. Wang, T.W. Sammis, and D. R. Miller. 2007 An evaluation of two inexpensive energy balance techniques for measuring water use in flood-irrigated pecans. (*Carya illinoensis*) *Agricultural Water Management*. 88:181-191
- Wang, J., and T.W. Sammis. 2008. New Automatic Band and Point Dendrometers for Measuring Stem Diameter Growth. *Applied Engineering in Agriculture*. 24(6):731-742.
- Kallestad, J.C., J.G. Mexal, and T.W. Sammis. 2009. mesilla valley pecan orchard pruning residue: biomass estimates and value-added opportunities. NMSU-AES research report 764.

Evapotranspiration:

- Sammis, T.W., E.J. Gregory, and C.E. Kallsen. 1982. Estimating evapotranspiration with water-production functions of the Blaney-Criddle method. *Transactions of the ASAE*. 25(6):1656-1661.
- Abdul-Jabbar, A.S., T.W. Sammis, D.G. Lugg, C.E. Kallsen, and D. Smeal. 1983. Water use by alfalfa,

- corn and barley as influenced by available soil water. *Agricultural Water Management*. 6:351-363.
- Abdul-Jabbar, A.S., D.G. Lugg, T.W. Sammis, and L.W. Gay. 1985. Relationships between crop water stress index and alfalfa yield and evapotranspiration. *Transactions of ASAE*. 28(2):454-461.
- Sammis, T.W., C.L. Mapel, D.G. Lugg, R.R. Lansford, and J.T. McGuckin. 1985. Evapotranspiration crop coefficients predicted using growing-degree-days. *Transactions of the ASAE*, 28(3) 773-780.
- Sammis, T.W., and J.G. Mexal. 2002. The quotidian cycle of evapotranspiration from pecan trees. The 13th Conference on Applied Climatology, 13-15 May, Portland Oregon. 275-278.
- Al-Jamal, M.S., T.W. Sammis, J.G. Mexal, G.A. Picchioni, and W.H. Zachritz. 2001. A growth -irrigation scheduling model (GISM) for wastewater use in forest production. *Agricultural Water Management*. 56:57-79.
- Sammis, T.W., and Z.A. Samani. 1991. Crop water requirement and irrigation scheduling in *Trends in Agronomy*. Research Trends Trivandrum Ind.
- Al-Jamal. M.S., T.W. Sammis, S. Ball, and D. Smeal. 1999. Yield based irrigated onion crop coefficients. *ASAE Applied Engineering in Agriculture*. 15(5): 659-668.
- Al-Jamal. M.S., T.W. Sammis, S. Ball, and D. Smeal. 1999. Computing the crop water production function for onion. *Agricultural Water Management*. 46:29-41.
- St Hilaire, R., C.F. Feser, and T.W. Sammis. 2003. A system to measure evapotranspiration of in-ground container plants of Mexican elder. *HortTechnology*. 23(1):185-189.

Drip Irrigation:

- Sammis, T.W., and I.P. Wu. 1985. Effect of drip irrigation design and management on crop yield. *Transactions of the ASAE*. 28(3):832-838.
- Young, S., Sammis T.W., and I.P. Wu. 1985. Banana yield as affected by deficit irrigation and patterns of lateral layouts. *Transactions of ASAE*. 28(2):507-518.
- Sammis, T.W., and I.P. Wu. 1986. Fresh market tomato yields as affected by deficit irrigation using a micro-irrigation system. *Agricultural Water Management*. 12 (1-2): 117-126.
- Sammis, T.W., B.A. Kratky, and I.P. Wu. 1988. Effects of limited irrigation on lettuce and Chinese cabbage yields. *Irrigation Science*. 9:187-198.
- Sammis, T.W. , and I.P. Wu. 1989. Deficit irrigation effects on head cabbage production. *Agricultural Water Management*. 16(3):229-239.
- Sammis, T.W., S. Williams, I.P. and Wu. 1990. Development of a trickle irrigation scheduling model. *Computers and Electronics in Agriculture*. 5:187-196.
- Chavex, N.R., and T.W. Sammis 1993. Selecting trickle irrigation filters using an expert system. *Agriculture and Environmental Science*. 7(3):21-29
- Xie, J., E.S. Cardenas, T.W. Sammis, M.M. Wall, D.L. Lindsey, and L.W. Murray.1999. Effects of irrigation method on chile pepper yield and *Phytophthora* root rot incidence. *Agricultural Water Management*. 42:127-142
- Al-Jamal, M.S., S. Ball, and T.W. Sammis. 2001 Comparison of sprinkler, trickle and furrow irrigation efficiencies for onion production. *Agricultural Water Management*. 46(3):253-266.

Natural Resources-Hydrology:

- Sammis, T.W., and L.W. Gay. 1979. Evapotranspiration from an arid zone plant community. *Journal of Arid Environments*. 2:313-321
- Sammis, T.W. 1981. Lysimeter for measuring arid zone evapotranspiration. *Journal of Hydrology*. 49:385-394

- Sammis, T.W. 1972. Water disposition in ephemeral stream channels. Presented at the annual meeting of the conference on Hydrology and Water Resources in Arizona and the Southwest. Hydrology Section, Arizona Academy of Science. 2:473-491.
- Sammis, T.W., H.K. Qashu, J. Ryan, and J. Thames. 1972. I. Sampling soil changes; II. Channel transmission losses. Desert Biome, U.S. International Biological Program. Utah State University Research Memorandum. 72:1-13.
- Evans, D.D., T.W. Sammis, H.K. Qashu, and M.L. Wheeler. 1973. Water uptake by plants under desert conditions. Desert Biome, U.S. International Biological Program. Utah State University Research Memorandum. 73:1-42.
- Evans, D.D., T.W. Sammis, S. Nnaji, and G. Hansen. 1975. Water infiltration under desert conditions. Utah State University Project Completion Report, Desert Biome, U.S. International Biological Program.
- Evans, D.D., and T.W. Sammis. 1975. Plant growth and water transfer interactive processes under desert conditions. Desert Biome, U.S. International Biological Program. Utah State University Project Completion Report.
- Evans, D.D., T.W. Sammis, and D.W. Young. 1975. Measurement of evapotranspiration with monolith lysimeters. Desert Biome, U.S. International Biological Program. Utah State University Project Completion Report.
- Nnaji, S., T.W. Sammis, and D.D. Evans. 1975. Variability of infiltration characteristics and water yield of a semi-arid catchment. Presented at the annual meeting of the conference on Hydrology and Water Resources in Arizona and the Southwest. Hydrology Section, Arizona Academy of Science. (5): 67-77.
- Evans, D.D., T.W. Sammis, and A.W. Warrick. 1976. Transient movement of water solutes in unsaturated soil systems, Phase II. Project B-040-ARIZ Completion Report, Department of Hydrology and Water Resources, University of Arizona.
- Gay, L.W., T.W. Sammis, and J. Ben-Asher. 1976. An energy budget analysis of evapotranspiration from saltcedar. Proceedings, Hydrology and Water Resources in Arizona and the Southwest. 6:181-187.
- Sammis, T.W., D.W. Young, and C.L. Constant. 1976. Construction, calibration and operation of a monolith weighing lysimeter. Proceedings, Hydrology and Water Resources in Arizona and the Southwest. 6: 227-231.
- Gay, Lloyd W., and T.W. Sammis. 1977. Estimating phreatophyte transpiration. Proceeding, Hydrology and Water Resources in Arizona and the Southwest, Vol. 7.
- Sammis, T.W., D.L. Weeks. 1977. Variations in soil moisture under natural vegetation. Proceedings, Hydrology and Water Resources in Arizona and the Southwest. Vol. 7.
- Evans, D.D., T.W. Sammis, and D.R. Cable. 1981. Actual evapotranspiration under desert conditions. In: Water in Desert Ecosystems, D.D. Evans, J.L. Thames, (Editors). US/IBP Synthesis Series. No. 11. Dowden, Hutchinson & Ross, Inc., Stroudsburg, Pennsylvania. 195-281.
- Sammis, T.W., D.D. Evans, and A.W. Warrick. 1982. Comparison of methods to estimate deep percolation rates. American Water Resources Assoc. Water Resources Bulletin. 18(3):465 – 470.
- Asare D. K., T. W. Sammis, D. Smeal, and T.L. Jones. 1996. Sensitivity of simulated field water balance to different soil hydraulic data. American Society of Agricultural Engineering. 39(6):2085-2092.
- Sammis, T.W., and J. G. Mexal. 1999. Irrigation water management to sustain agriculture in the desert. In Herrera, E.A. and J.G. Mexal (eds) Ensuring Sustainable Development of Arid Lands through Time. New Mexico Academy of Science Journal. 39:293-301.
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