

**COOPERATIVE EXTENSION
UNIVERSITY OF CALIFORNIA**

DAVIS, CALIFORNIA 95616

REPLY TO: Land, Air, and Water Resources
Veihmeyer Hall
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28 December 1992

To: Members of the Water and Soil Management Workgroup

From: Larry Schwankl *LS*

Subject: Listing of recent and on-going activities of Workgroup members attending the
November 1992 meeting

Attached is a listing of the recent and on-going activities of those Workgroup members attending the November meeting. The listing is a composite of my notes taken during the session in which the attendees discussed their water / soil related work and interests. If I have misinterpreted what anyone said, my apologies. If you plan to embark on a project or have questions regarding a particular subject area in which another workgroup member has done work, the list should be a useful resource.

Hope you all had a good holiday.

WATER AND SOIL MANAGEMENT WORKGROUP
CURRENT ACTIVITIES OF WORKGROUP MEMBERS
November 1992

WORKGROUP MEMBER	ACTIVITY
Warren Bendixon	CIMIS and irrigation practices Salinity levels of water due to recycling Wastewater application on pastures and its effect on groundwater Drip irrigation with saline water
Dave Crohn	Teaching undergrad class in waste management
John Edstrom	Drip irrigation of almonds at Nickel's Surface and subsurface drip and micro-sprinklers on new almond planting at Nickel's Deficit irrigation of almonds Drip irrigation of walnuts
Ben Faber	Investigation of inexpensive soil moisture meters Crop coefficient work on avocados and lemons Computer controlled irrigation of potted plants Atmometers
Louise Ferguson	Crop coefficients on olives deficit irrigated Citrus - nitrogen fertigation Pistachios - salinity effects Future work - root selection for salinity tolerance

WORKGROUP MEMBER**ACTIVITY**

Steve Grattan

Vegetable crop coefficients
 Agri-forestry project - measuring eucalyptus water use
 Reuse of saline drainage water
 Salinity management - book chapters
 Reconnaissance of trace elements
 Molybdenum project
 Salinity workshops and handbook
 Subsurface drip - weed control, seed germination
 Magnetic water treatment devices - control of drip emitter clogging

Blaine Hanson

Salinity distribution around sub-drip tapes
 Buried drip on tomatoes
 Surge irrigation
 Handbooks on salinity, surge, drip, and pumps
 Variable speed pumps
 Mobile lab reports - evaluation
 Flow meter (multiple types) performance under various hydraulic conditions

John Kabashima

Turfgrass water audit project - 5 counties in S. CA
 Computer / tensiometer work
 Water recycling in production nurseries - pathogens
 Nursery irrigation manual

Rollie Meyer

Water / N interactions at Nickel's - nitrogen sources and their effect on soil acidity
 Potato / nitrogen
 Waste disposal projects - flyash, yard wastes, sewage sludge application
 Applies - nutrient cycling
 Alfalfa and eucalyptus - nitrogen

Deanne Morse

Livestock and dairy water management
 Pollution of on-farm wells
 Nutrients on to soil from application of lagoon water

WORKGROUP MEMBER**ACTIVITY**

Dan Munk

Termination dates of cotton irrigation
 Drip tape irrigation of cotton / vegetables at WSFS
 - depths of tape placement, rotations, and bed
 types

Phil Osterli

Use of municipal sludge on ag lands
 USDA Hydrologic Unit project

Jim Oster

Infiltration manual supported by Kearney
 Foundation
 Emerging technologies - Harris Ranch
 Water run gypsum work with A. Fulton
 Offering course in using wastewater
 Nutritional aspects of grapes
 Selenium work - low sulfate soils
 Chloride concentrations around sub drip lines
 Reclamation paper including deep incorporation of
 gypsum

Stu Pettygrove

Rice farm performance etc. with incorporation of
 rice straw vs. burning
 Dairy waste bulletin including lagoon water and
 solid waste
 Salinas Valley nitrate project - effects of various
 irrigation methods (drip vs. furrow) on nitrate
 movement

Terry Prichard

Irrigation strategies on almonds, grapes
 Stress / quality in wine grapes
 Enhancement of grape color with less water
 Establishment of vineyard at Hopland
 Water penetration - cover crops, nutrition
 Infiltration - crusting ratios
 Delta efficiency of salt removal

WORKGROUP MEMBER**ACTIVITY**

Bill Richardson

Aerator use on orchard floors
Use of grain crop in orchards to improve infiltration
Energy Commission projects including field trips
for growers

Blake Sandon

Cover crop trial (solid set sprinklers)
Interest in soil amendment (gypsum, etc.) work

Larry Schwankl

Testing of various electrical resistance blocks
Flow meter (multiple types) performance under
various hydraulic conditions
Evaluation of drip tape products under field
conditions
Salinas irrigation system / nitrate study
Use of copper sulfate as a biocide and root inhibitor
in sub-drip tapes
Injection of organic fertilizers through low volume
irrigation systems
Subsurface drip - weed control, seed germination
Magnetic water treatment devices - control of drip
emitter clogging
Handbook on drip irrigation

Dave Shaw

Use of reclaimed water on turfgrass
Survey of future reclaimed water users
Salt tolerances of ornamentals
Deficit irrigation (during summer) of ornamentals
Growth regulator study
MWD turf education program
Water policy - AB 325 and CIMIS

WORKGROUP MEMBER**ACTIVITY**

Rhonda Smith

Sugar beet lime use on vineyard to improve
infiltration

Hopland Vineyard establishment

Rick Snyder

Wind machines for frost protection

Ground cover on grapes for frost protection

Regional ET estimates

Net radiation eqns. for CIMIS network - daily eqns.
for design work

IR thermometers used to measure ET directly

Survey of irrigation methods - due out 12/92

Irrigation scheduling computer program

Drought tips

Paul Verdigaal

Rootstock irrigation trial to investigate drought
tolerance

Greg Vogel

Turf water management

Computer / tensiometer work