



Disease Management Update: Processing tomatoes

🏠 Drip Chemigation Studies

Gene Miyao, UC Coop Extension, Yolo, Solano and Sacramento counties

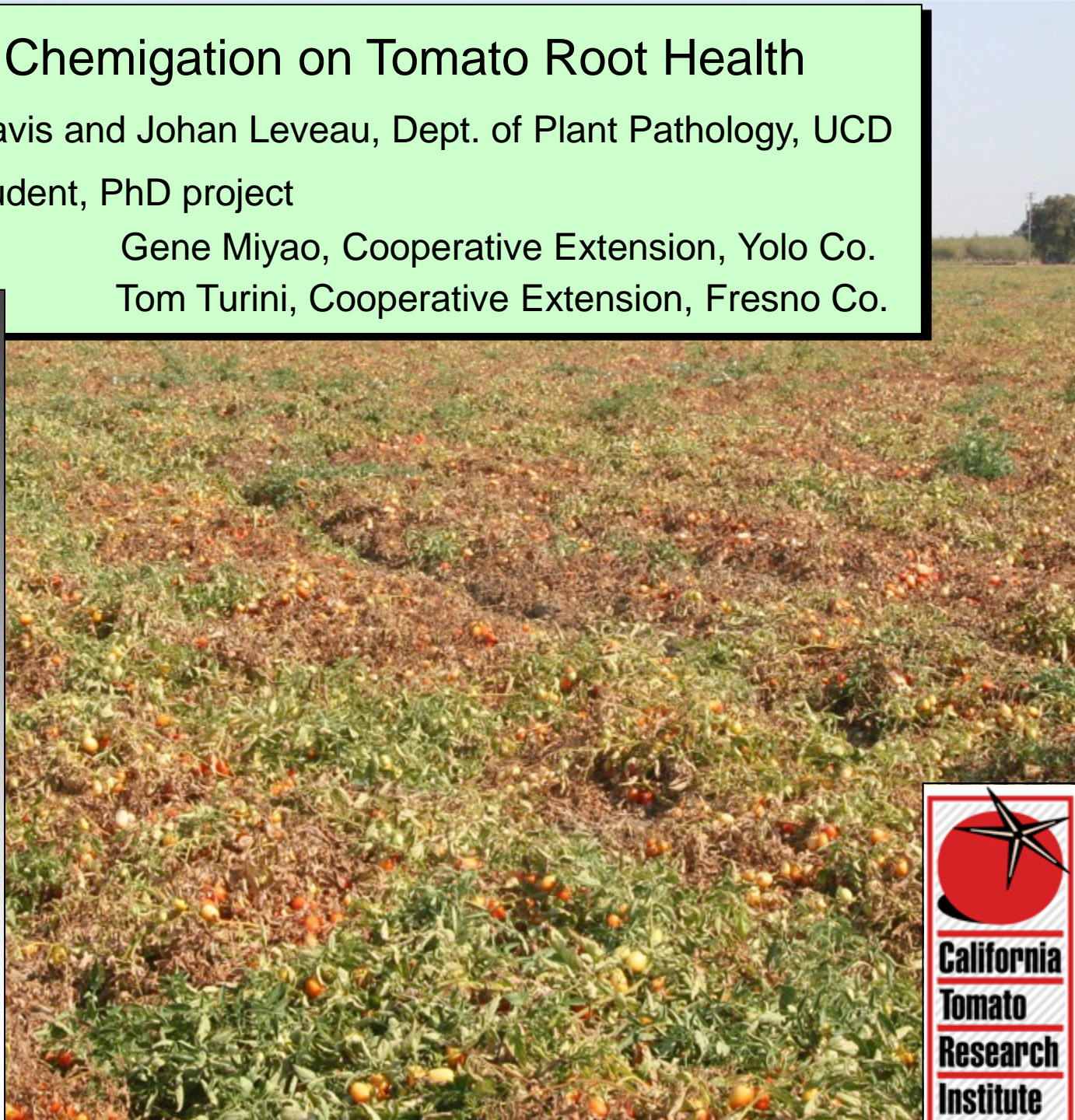
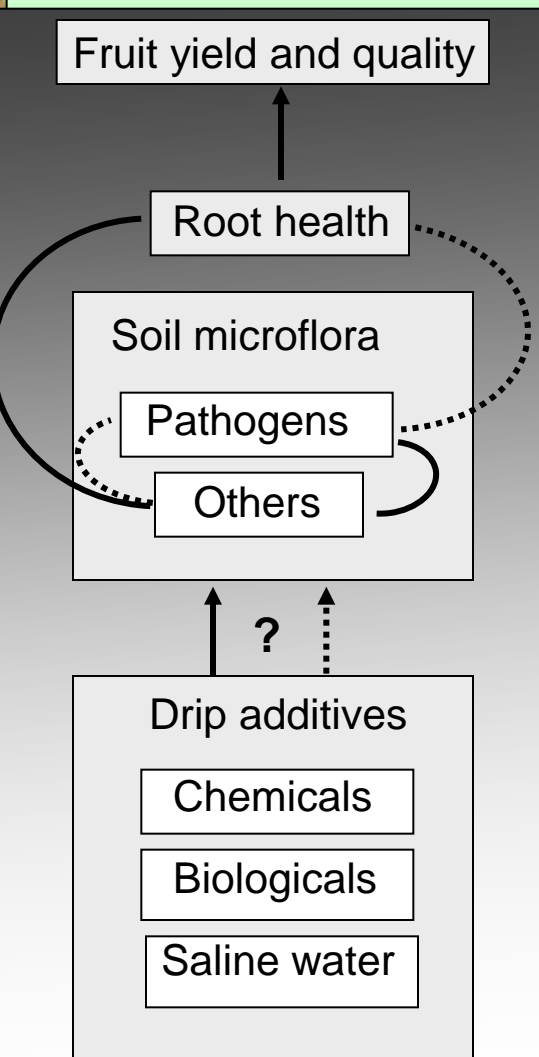
Evaluation of Chemigation on Tomato Root Health

Mike Davis and Johan Leveau, Dept. of Plant Pathology, UCD

Nilesh Maharaj, grad student, PhD project

Gene Miyao, Cooperative Extension, Yolo Co.

Tom Turini, Cooperative Extension, Fresno Co.



More of...

- Buried drip irrigation continues to increase
- Rotations to tomato are more concentrated
- Incidence of soilborne pathogens is increasing



Sclerotium rolfsii
Southern Blight



Fusarium oxysporum f. sp. *radicis-lycopersici*
Fusarium crown and root rot



2011		Woodland Field			Dixon Field		
	Chemigation Treatment	Yield tons/A	Vert %	Fusarium %	Yield tons/A	Vert %	Corky root severity
1	Control	34 b	20	21	46	50	89
2	Vapam 15 gal	35 b	15	28			
3	Tenet	34 b	18	22	48	45	86
4	Vapam + Tenet	34 b	19	26			
5	Quadris + Ridomil	33 b	17	27	47	34	84
6	Vapam + Quad + Ridomil	36 b	15	33			
7	Serenade Soil	38 b	18	22	45	47	89
8	Serenade + Quad + Rid				46	47	88
9	Vapam + Serenade	36 b	13	25			
10	Chicken manure	45 a	15	19	52*	48	89
11	Tenet + Serenade				46	49	90
12	SoilGard				44	45	93
			NS	NS	NS	NS	NS
					* significant difference: manure vs non-manure		



Fusarium crown rot
F. oxysporum



2012 Treatments (*tentative*)

Control

Quadris + Ridomil

Vapam highest rate (15 gal in 2011)

Serenade soil

Regalia

Compost tea

Chicken manure - 10 tons

Chicken manure - 20 tons

Chicken manure + Serenade

Potassium - high rate





Verticillium



Southern blight



Phytophthora root rot



Corky root



Crown and root rot



Fusarium wilt



Summary:

Disease Control Evaluations

- ✓ No demonstrated effectiveness of chemicals & biologicals through drip irrigation

Value of composted chicken manure?