COOPERATIVE EXTENSION
University of California – Yolo, Solano & Sacramento Counties

South Sacramento Valley Field Crops Report

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Lodging Wheat Problem

I have been seeing some wheat starting to lodge as I drive around. One field I was called out to was 70% or more lodged. I took Tom Kearney out with me to look at this field, figuring I would learn something and I was right. It turns out that for those fields that were planted around the 1st of November, germination, growing and tillering conditions were ideal. Plant population in this field, as in others I have seen lodging, was very high. When we talked with the growers, it turns out they planted Anza at a rate of 150-160 lbs. Tom has shown that at rates above 80 lbs., for varieties like Anza, yield starts to decline. Most years, the fall-early winter growing conditions can be dry or just moist enough to germinate the seed and then it dries out. Many of you tend to up the seeding rate to compensate. Unfortunately, this was not the year to nearly double the seeding rate, all the seed came up and the temperature conditions in December promoted tillering. In this field, where you normally see only one to three tillers at this high plant population, we found four to six tillers. It looked a bit like a lawn. Consequently, the stems are very fine and starting to lodge. In the field Tom and I looked at there are parts of the field that is already laying flat. Some good news out of this could be that the conventional wisdom says the more the tillers the better the yield, as long as everything else good.

Septoria Showing Up in Wheat

This looks like this could be a year for septoria. I have been finding it in some of the fields in the Clarksburg area. Look for elongated light patches that turn brown on the lower leaves. Close inspection should show many small shinny black specks called pycnidia. These contain the spores of this fungus. It requires free water to move the spores around. Hopefully, we will get some warm dry weather before the flag leaves emerge. The disease usually does not cause significant yield loss until it infects the flag leaf. Foliar fungicides can be used to control the disease, but at current wheat prices it won't pay for most of us.

2001 Field Corn Variety Trial Results

2001 YOLO/SOLANO/SACRAMENTO FIELD CORN PRODUCTION TRIAL RESULTS – Corn Books are available to be picked up in our office. You can give me a call and I will come out and go through the results with you.

I conducted two variety trials during the 2001 season. The first trial was located on the UC Davis Agronomy Farm and the second was located on Tyler Island with Mello Farms. Each location represents the two major corn growing regions of the three counties. UCD has inorganic soils, furrow irrigations, and warmer dryer weather conditions. Where as, Tyler Island has organic soils, sub-irrigation (spud ditches), and cooler windier weather conditions. Corn seed companies generally recognize these major growing conditions and recommend different varieties for each location; this is reflected in the variety list for each trial.

2001 UCD Corn Variety Trial

Location: UC Davis Agronomy Farm
Planting date: May 8, 2001
Planter: John Deer 71
Plot Size: 4 rows, 226 feet long
Seed Drop: 6 inches
Planting Depth: 2 inches
Row Spacing: 30 inches
Rows per Plot 4
Replications: 2

Cooperator: Richard McGraugh
Harvest Date: October 16, 2001
Soil Type: Yolo loam, Class I
Previous Crop: 2000-Fallow
Fertilizer: 200#NH_2SO_4
Insecticide: None
Herbicide: None
Irrigation: Furrow

Entry Name/NO.	Stand (Plants/A)	Days to Bloom	Maize Dwarf Mosaic (%)	Fusarium Ear Rot (%)	Head Smut (%)	Common Smut (%)	Ear Height (in)	Harvest Moisture (%)	Bushel Wt. (lbs/bu)	Yield** (lbs/A)	Duncan's Multiple Range Test (5%)
NC+ 7101	29140	68	0	1	0	2	57	12.0	57.8	11688	A
ES O1070	26937	70	0	5	0	1	54	11.2	57.7	11228	AB
AS RX826RR	25034	64	0	0	0	2	60	11.8	58.7	11025	AB
PI 33B50	26737	65	0	2	0	2	52	11.7	59.7	10937	ABC
NC+ 5411	25635	67	0	4	0	1	50	11.5	58.2	10685	ABCD
DK60-17RR	25936	70	0	3	0	1	44	11.4	58.3	10634	ABCD
MY 8070	26036	66	0	0	0	0	74	11.7	59.9	10554	ABCD
ES 20015	25235	69	0	7	0	1	52	11.4	58.4	10454	ABCD
SI 7730	27438	67	0	1	0	1	55	11.2	59.9	10431	ABCD
PI 31G98*	25936	65	0	0	0	3	56	11.2	59.2	10335	BCD
NK N7992	27438	68	0	3	0	1	64	12.1	60.6	10170	BCDE
BS SX5460	32044	66	0	2	0	0	65	11.4	57.8	10065	BCDE
PI 31G98	25135	64	0	1	0	1	58	11.4	59.1	10050	BCDE
DK64-10RR	26036	65	0	0	0	1	53	11.2	58.0	9890	BCDE
BS SX5650	34648	66	0	2	0	3	58	11.2	57.2	9627	CDE
MY 2888 IMI	29140	66	0	1	0	0	65	12.3	59.8	9531	DE
AS RX897	27238	67	0	0	0	0	70	11.8	59.3	8937	E
NK N8214	35148	69	0	2	1	2	61	11.2	58.2	8877	E
Average	27827	67	0	2	0	1	58	11.5	58.8	10284	
C.V.%	5	1	NS	NS	NS	NS	7	2.3	1.4	5	
LSD @ 5%	3178	1					8	0.6	1.7	1164	

*Grower's standard variety
** Yield adjusted to 15% moisture

2001 Mello Corn Variety Trial

Location: Mello Farm, Tyler Island
Planting date: April 17, 2001
Planter: : White air planter
Plot Size: : 4 rows, 1500 feet long
Seed Drop: 6 inches
Planting Depth: 2 inches
Row Spacing: 30 inches
Rows per Plot 4

Cooperator: Steve Mello
Harvest Date: October 9, 2001
Soil Type: Egbert muck, Class I
Previous Crop: 2000-Fallow
Replications: 2
Insecticide: Thimet granules at planting
Herbicide: Accent
Irrigation: Subirrigation by spud ditch

Fertilizer: 30 gallons of 8-24-6 with 0.5% zinc banded 1.5 inches below and 1.5 inches to the side of seed.

Entry Name/NO.	Stand (Plants/A)	Maize Dwarf Mosaic (%)	Fusarium Ear Rot (%)	Head Smut (%)	Common Smut (%)	Ear Height (in)	Harvest Moisture (%)	Bushel Wt. (lbs/bu)	Yield** (lbs/A)	Duncan's Multiple Range Test (5%)
NK N83-N5	34147	0	0	0	1	66	13.5	63.2	14323	A
AS RX897	35749	0	0	0	0	62	13.3	61.4	14221	A
ES 20015	33546	0	5	0	1	47	13.2	60.8	13750	AB
ES 20070	34047	1	1	0	1	48	13.3	61.1	13426	ABC
NC+ 5411	32845	0	0	0	1	49	13.4	61.0	13379	ABC
MY 8070	35048	1	0	0	0	70	13.6	62.3	13351	ABC
PI 31G98	33546	2	0	1	0	57	13.0	61.9	13349	ABC
PI 31G98*	34347	1	0	0	0	57	13.2	62.5	13309	ABC
BS SX5400RR	35549	0	2	1	0	51	12.9	60.6	13284	ABC
NC+ 6868	30142	0	1	1	0	53	14.2	60.0	13184	ABC
BS TS646	32244	1	0	1	0	52	12.9	59.5	13150	ABCD
DK64-10RR	32945	2	0	1	0	52	13.1	61.1	13104	ABCD
DK647	32244	0	1	1	0	58	13.8	60.1	12855	ABCD
NK N7992	32545	1	2	1	0	59	13.3	62.7	12788	ABCD
AS RX826RR	30142	0	0	2	2	56	13.6	61.3	11836	BCD
PI 34M94	32445	1	0	0	0	46	12.9	60.7	11772	BCD
SI 7730	32845	2	0	2	0	47	13.3	61.1	11617	CD
MY 8460	33847	0	4	1	3	61	13.4	60.0	11220	D
Average	33235	0	1	1	0	55	13.3	61.2	12995	
C.V.%	1	NS	NS	NS	NS	7	1.7	0.8	6	
LSD @ 5%	596					8	0.5	1.0	1703	

* Grower's standard variety
** Yield adjusted to 15% moisture

Growing conditions of the UC Davis trial were drier and less uniform than I like. I feel the results are an indication of how well the varieties can do in less than ideal conditions. The data does not necessarily represent the full potential of these varieties for this region. Therefore, I have decided that the 2002 variety trial will be located in a grower's field near Davis.

I normally hold a corn production every 2-3 years, I held one last year so there will not be on this year. If you would like a corn book with this data and the new Updated UC IPM Pest Management Guidelines for Corn please drop by the office. I will leave copies at the Solano and Sacramento UCCE offices as well.

Early Planting of Safflower

I do not recommend planting safflower before March 15th, and I feel its better to wait until your are near the 1st of April. As long as the soil is no too sandy and you have kept the weeds off the soil will remain a full water holding capacity until something starts to remove it. It is important to watch the soil moisture in the planting zone, hold off working the ground until just before planting and keep the weeds burned off.

Submitted by,

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