

# California Wheat

*Made with the Golden Touch!*

## *CWC Wheat Bulletin Field Report*

April 11, 2011

**From: Steve Wright - Farm Advisor Tulare and Kings County.** April 7, 2011

Overall the small grains have looked outstanding. Growers in general have done a great job keeping up with adequate nitrogen and phosphorus. Fields have thus been set up well for a high yield potential and hopefully still make high protein. I included some guidelines as added insurance that I think will really be critical this year. Years with cool temperatures during grain fill and little disease present or leaf diseases controlled and adequate water end up with high yields but often low protein.

Grass weed control has generally been excellent even with a shortage of Puma grass herbicide. There was a lot of success with Axial grass herbicide for wild oats and Italian ryegrass. Express herbicide also was used quite a bit this season and gave great control of tough broadleaf weeds like chickweed, burning nettle, especially in combination with other broadleaf herbicides.

Most of the wheat fields have been very clean from stripe rust that I have seen up until this last week. I have looked at all of our sites in Ducor, Porterville, Corcoran, and Five Points and even susceptible varieties have been free from stripe rust. I have heard of reports of stripe rust starting to show up in a couple triticale varieties and last week I saw my first fields with stripe rust in Joaquin wheat. Last year we saw the same thing happen but the rust never took off. With favorable conditions for the stripe rust to spread, and some stripe rust is beginning to appear, and many fields reaching the last stage of growth of growth that the fields can be sprayed, it makes sense to treat these fields. This year a couple fields that I saw were worse than I have seen before. In addition,

bacterial blight is showing up in some fields, however this foliar leaf disease is not treatable.

### **Nitrogen Management and Grain Protein**

Wheat grown for semolina and bread-type end uses will likely require one more application of nitrogen fertilizer after heading to ensure high grain protein. Several years of trials throughout the Central Valley in the 1980's showed late applications of nitrogen after heading increased grain protein 1-2 percent and contributed to 150 to 300 lbs/ac more yield due to higher kernel weight. The N application should be applied after heading. A fairly wide window (about 3 weeks) of opportunity exists for the N application ranging from just after the grain heads have elongated from the flag leaf sheath to about 2 weeks after flowering. This should coincide with early to mid April for December plantings.

Appropriate late season N rates may range from 20 to 50 lbs N/ac. Lower N rates are appropriate for lower yielding crops (2.25-3.0 tons/ac) and higher N rates are best suited for yields above 3.0 tons/ac. Sufficient grain protein may be attained without a late season N application if wheat yields are less than 2.25 tons/ac, if pre-plant fertilizers and top-dress applications were applied during the vegetative growth stages. Generally, cool, dry weather during grain filling will result in higher grain yields and management for protein will be more critical.

### **FIELD DAYS AND TOURS**

May 2,4 - Tulare County Tours of Trials  
May 3 - West Side Research & Extension  
Center Spring Field Day  
For details: Steve Wright at 559-684-3315

Nitrogen fertilizer trials have shown an application of N near boot stage (before heading), which should

occur between mid to late March for December plantings, will also elevate grain protein. Typically, the increase in grain protein is about 0.5-1.0 percentage point. The grain protein increase with N applied at boot stage is not as large as the response when applied at flowering (about 1.0-1.5% increase). The smaller effect on grain protein with an N application at boot stage is attributed to two factors: 1) the boot stage N application may also result in a yield response of 500 to 1000 lbs/ac which means more grain is produced and requires more N in the grain to attain suitable protein levels; and 2) the wheat plant is more efficient at partitioning the nitrogen to the grain after heading than at boot stage (before heading). Water run applications of ammonia or UAN-32 or urea topdressed just before irrigation are the preferred materials and methods for late season fertilization.

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**From: Kent Brittan, UCCE County Director and Farm Advisor for Yolo, Solano and Sacramento counties.** April 8, 2011

We have a very good wheat crop on most of the well drained soils of southern Sacramento Valley including the Delta this season. However, on heavy soils that are poorly drained we have a good wheat crop that is now suffering. Water logging is the principal problem which has destroyed the bottom leaves and severely yellowed the middle of the canopy. This soil moisture has exacerbated the Septoria tritici Blotch and Bacterial Leaf Blight that are normally found in the lower canopy at heading. The necrotic (dead, tan color) leaf tissue symptoms caused by these two diseases look very similar and is very hard to separate even for me. Please refer to the UC IPM Small Grains web site for detailed descriptions: <http://www.ipm.ucdavis.edu/> go to the Ag (Pest Management Guidelines section, Small Grains). Click on the Bacterial Blights link and read the Symptoms section and click on the hyper link (blue letters) "brown streaks" in the paragraph. Notice the 3 leaves showing symptoms and see how like Stripe Rust they look and you can see why I am having trouble stopping all the "stripe rust" spraying being done in the lower Sacramento Valley. I'll discuss later where I'm seeing a little stripe rust. The key to separate out septoria from the bacterial disease are the very small black dots of spore-forming pycnidia that are found within the dry tan Septoria leaf lesions. Look up Septoria on the Small Grains

web page and look at the pictures of the lesions. Unfortunately, many septoria lesions do not show the black dots, especially early on in February-March. Also the Bacterial Blight lesions are not always long and they later turn tan, looking as they do now, like Septoria. I do expect to see some yield loss from these diseases this year in wheat on the heavy soils. I do not recommend spraying for either disease. There is no pesticide label for controlling Bacterial Blight; fungicides do not affect bacteria, just funguses. There are some materials registered for Septoria but none of us Advisors have ever had any success controlling that disease. If you try it, please leave out a non-treated strip and harvest it to see if the yield is different from the treated.

I have found a little stripe rust in the variety Joaquin (shouldn't be growing that around here anyway) and one small outbreak in Redwing. This has been verified by Syngenta, the seed handler, Lee Jackson and myself. The field is just north of the town of Yolo and was treated 3 days after it was discovered. I'm continuing to monitor it and hopefully we will get lucky like we did with Cal Rojo. I have also seen a little frost injury, mostly minor >1% in a few areas, but one field in the Hungry Hollow area injury is about 20%.

Most of the crop is heading now with above normal soil moisture that should take us all the way to harvest. Please come out to one of my Wheat Trial locations, check out my web page for location maps: ([http://ceyolo.ucdavis.edu/Custom\\_Program724/Small\\_Grains\\_Studies/](http://ceyolo.ucdavis.edu/Custom_Program724/Small_Grains_Studies/)) Good Luck!

<p><b>UCD SMALL GRAINS FIELD DAY</b> UC Davis - May 11, 2011. For details, call Kitty Schlosser at 530-752-6979</p>
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**From Lee Jackson on April 6, 2011**

The Sacramento Valley of California has had greater than normal seasonal rainfall this year, providing conducive conditions for stripe rust and Septoria tritici blotch. On 4/6/11, I observed our University of California wheat variety evaluation test in Colusa county (about 30 miles north of Sacramento). Wheat was in the heading stage. Stripe rust was severe (40-80% severity, 40-80% incidence) on a half-dozen or so entries, including the wheat varieties Joaquin, Dirkwin, Mika, and Anza, and the triticale variety Trical Brand 118. Leaf rust was moderately severe on the variety Dirkwin. Septoria tritici blotch also was

severe on a half-dozen or so entries including the wheat varieties Joaquin, Clear White, and Yecora Rojo.

I also observed commercial acreage (over one hundred acres) of the variety Joaquin, about 15 miles northwest of the University trial (west of Grimes, Colusa county). The crop was in the heading stage, and had severe stripe rust (80% severity, 100% incidence). The grower had treated with fungicide twice, but applications were too late to achieve control.

**From: Steve Orloff - Farm Advisor/County Director, Siskiyou County. April 7, 2011**

Like other areas of California, this has been a weird year for weather in the Intermountain Region. January and early February were extremely dry with mild temperatures. Then winter arrived again and it has been wet and cold since. In fact, it snowed and hailed today. Due to the weather, many growers are behind preparing fields for spring wheat plantings. A few fields have been planted in the warmer valleys of the intermountain region but the overwhelming majority of fields have not been planted or even land prep completed in order to plant. The nitrogen fertilization trial to maximize yield and grain protein content supported by the California Wheat Commission is scheduled to be planted tomorrow April 8 (weather permitting).

Winter wheat fields were seeded back in October and November and are now in the tillering stage. They appear to be in good condition.