

## CWC Wheat Bulletin

### <u>Disease Update from Lee Jackson, Retired</u> Statewide Small Grains Specialist:

California's fall-sown small grain crop is now in the final stages of grain-fill. The growing season was very dry from October through early March, and then above average amounts of rain occurred in March and April. The late rains will result in near normal yields for much of the rainfed portion of the crop where initial plant stands survived. Total precipitation in the Central Valley was about 60-70% of average.

During the growing season I evaluated the UC Regional nurseries managed by the UC Small Grains program for diseases and other pest problems. The nurseries contain current varieties, recently released newer varieties, and advanced breeding lines from the UC breeding program and from the major private breeding programs. Disease incidence and severity in the nursery plots is a good indication of disease pressure occurring on commercial acreage. Stripe rust occurred throughout the Central Valley, but reached high severity in nurseries on only a handful of varieties.

Stripe rust was most severe in nurseries in the Sacramento/San Joaquin Delta (at a site west of Stockton), at the UC Davis Agronomy Farm, and, later in the growing season, in the San Joaquin Valley in Fresno and Kings counties. Among varieties that are grown on significant acreage in California, Joaquin was the most severely affected. Among previously resistant varieties, Redwing and WB Cristallo showed

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moderately severe to severe levels of stripe rust at a couple of sites in both the Sacramento Valley and the San Joaquin Valley. Also, for the first time, infection (though only of moderate severity) was detected on the variety Blanca Fuerte.

A large stripe rust screening nursery (over 2500 entries) was grown on the UC Davis Agronomy Farm. A large proportion of the entries, from across the United States and throughout the world, were highly susceptible. One portion of the nursery contained genotypes with the various single stripe rust resistance genes (designated Yr genes, for resistance to yellow rust, an alternate name for stripe rust) that are used for race identification and to develop resistant varieties. Among the single-gene lines, virulence was indicated for YrA, YrPr1, YrPr2, YrSp, Yr1, Yr6, Yr7, Yr8, Yr9, Yr17, Yr18, Yr21, Yr24, Yr25, Yr26, Yr27, Yr29, Yr43, and Yr44. Lines with Yr genes Yr5, Yr10, and Yr15 showed no infection. Yr5 and Yr15 form the basis for stripe rust resistance in several of California's newer wheat varieties.

In addition to stripe rust, I observed other foliar diseases on small grain crops this season. Barley yellow dwarf (BYD), a virus vectored by aphids, was widespread on wheat and barley throughout the Central Valley, and reached moderately severe to severe levels on many of the entries in the UC Regional nurseries. In many cases BYD seemed to affect the crops more than stripe rust. Powdery mildew reached moderate severity on a

few varieties in both barley and wheat nurseries in the Central Valley.

One of the consequences of the dry winter was that Russian wheat aphid-infested plants were easily seen early in the growing season. Incidence was low, however, so no measurable yield reduction is likely.

#### Farm Advisor Crop Update:

Steve Orloff, Farm Advisor/ County Director from Siskiyou County provided the following update from the north: Overall, winter grain fields do not look nearly as good as they did last year. Some fall-seeded fields did not even emerge until late winter due to the lack of winter precipitation. March and April rains helped, and fields are progressing but do not have the growth potential observed last year. This is due to the late emergence as well as the recent unseasonably warm and dry conditions, which are not as ideal for grain growth as the cool damp conditions that prevailed last year. In addition, a frost (temperatures in the low 20's) occurred in the Klamath Basin last week and the winter wheat was hit especially hard. Spring cereal fields have all been planted and have emerged. Most fields look very good at this point with favorable growing conditions and irrigation. Weed control treatments are just beginning.

Kent Brittan, Yolo County Director & Agronomic Crops Advisor for Yolo, Solano and Sacramento Counties, submitted these comments: Most wheat fields are drying down now. Unevenness is showing up as green plants mixed with brown plants. In addition, those varieties hit by Barley Yellow Dwarf Virus, Patwin is the worst, have very early maturing heads with some stunting showing up. Stripe rust was only severe in Redwing, with some large heavy late patches in WB Cristallo. In most of the triticale I lost about one-third to half of the flag leaf to stripe rust with very little sporulation occurring. Camelot and Trical118 were the most affected. Sonora and Wit Wolkoring, old soft

wheat varieties popular with the specialty whole grain growers, were severely affected by stripe rust at the Montezuma Hills trial. Almost all the leaves are already gone even though these were the last varieties to head out in my trials. BYDV was also heavy in the California Red Oat field where I had my oat trial. We are expecting a little rain this Friday in our area, watch for black point in the durums and falling numbers heading into harvest. We are supposed to hit 100°F seven days after this rain, I'm hopeful this rain will have little effect. Watch out for shatter in the Cal Rojo as we dry down. Good luck.

Steve Wright, Farm Advisor, Tulare/Kings County, says: So far what I am seeing is a lot of wheat and triticale being harvested near dairies with wheat drying down fairly fast. We plan to harvest our silage trial on Friday. There is some lodging in fields but not as bad as last year. There is also some false black chaff showing up in some fields along with some tillers showing frost damage. Did see more canary grass showing up in more fields than I have seen before. With the late rains (up to 2 inches) more of the dryland wheat germinated and we actually will have a crop to harvest in areas that were not disked under earlier. I expect a high yielding wheat crop both for silage and grain. Growers are doing a lot of field work, and pre-irrigations for a double crop corn or sorghum.

#### Shepherd's Grain Comes to California

SUSTAINABLY-RAISED, LOCALLY-GROWN FLOUR NOW AVAILABLE TO CALIFORNIA BAKERS

In Summer 2012, Shepherd's Grain – a consortium of family grain growers – is offering regional bakeries a new, superior, Southern California-grown flour. Shepherd's Grain Imperial White flour is the first sustainably grown, locally produced, commercially available flour to feature a California-grown label. Most commercial mills bring in wheat grown in other states and blend it with California wheat to meet

the demand of the California market. Shepherd's Grain Imperial White is grown, milled and distributed completely within California.

Shepherd's Grain wheat is raised following sustainable, environmentally sound practices supported and verified by the Food Alliance (<a href="http://foodalliance.org">http://foodalliance.org</a>). These practices include water conservation, habitat preservation and air quality management. The local growers are inspected and certified by the Food Alliance to ensure compliance with these innovative and environmentally conscious farming practices.

Each flour bag is traceable to the farms that grew the wheat, assuring bakers of quality and safety, and making a clear connection between farm and plate. "Most wheat farmers are unaware of where their wheat goes once it leaves the field," said farmer Larry Hunn, Chairman of the California Wheat Commission. "Providing a connection between growers, millers, bakers, and end consumers benefits everyone along the way." Shepherd's Grain provides the first traceable flour available to California bakers through commercial channels.

"We are very happy that Shepherd's Grain has contracted with California growers to raise and market this environmentally-friendly, traceable flour to regional markets," says Janice Cooper, Executive Director of the California Wheat Commission. "We are seeing ever-growing interest among consumers to know where their food comes from. This flour provides bakers with a new way to meet this demand."

Bakeries throughout the Los Angeles region will be able to purchase this initial harvest on a limited basis. Following successful sales and reviews of the flour, Shepherd's Grain growers will increase production of this locally grown wheat during the 2012 growing season for expanded sales to restaurants, bakeries and other users.

Southern Californian bakers and consumers will soon experience the enhanced flavor and environmental advantages of sustainably grown, locally-produced flour in their breads, pastries and other baked goods, thanks to Shepherd's Grain and California wheat growers.

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#### **Commission Update**

- The Commission will be hosting a Korean wheat buyers team in late June. They will be stopping in California as part of a U.S.
  Wheat-sponsored tour to check the quality of this year's crop.
- Commission Vice-Chairman Roy Motter will be sworn in as U.S. Wheat Secretary/Treasurer at its summer board meeting in July. Motter is the first California grower to serve as a USW officer.
- The next Commission meeting will be on August 29 at the ARS facility in Albany. Commissioners and guests will meet with ARS scientists to get an update on their wheat-related research.