

Stripe Rust Management Plan for 2007

1. **Plant varieties suitable for your growing region and intended market.** Avoid using susceptible varieties or be prepared to apply a fungicide if you plant a susceptible variety. Refer to the small grains website (<http://agric.ucdavis.edu/crops/cereals/cereal.htm>) for variety information.
2. **Diversify your plantings.** Plant more than one variety in case new races of the stripe rust pathogen infect the crop in your region.
3. **Monitor your crop carefully during the growing season in order to detect the first infections early enough to plan for effective fungicide application(s).**
 - Initial infections in the Central Valley can occur as early as January or as late as April.
 - A trigger-point for fungicide application for effective disease control of susceptible varieties under conducive weather conditions is when 10% of plants show symptoms of infection or when 'hot spots' of disease are detected in the field.
4. **Pay attention to reports of stripe rust in other areas of California and surrounding areas.**
 - Infection in other areas is an early-warning for your area since spores of the stripe rust pathogen are wind-borne and can be disseminated over long distances (**hundreds of miles**) to cause infection.
 - The California Wheat Commission's Weekly Bulletin is a good source of this type of information.
5. **Monitor weather conditions.** Cool, wet conditions (50-60 degrees F with intermittent rain, fog, or dew) are most favorable for infection, spore production, and spore dispersal.
 - Keep in mind, however, that races of the stripe rust pathogen now present in California can cause disease at higher temperatures and drier conditions than in the past.
6. **Apply an effective fungicide (follow label directions) if necessary to minimize yield loss.**
 - Application timing is critical since available effective fungicides have residual activity of no longer than about 3 weeks.
 - If the initial application is made too early, (before infection is detected) the protective activity of the fungicide will be gone before disease appears. Losses then will occur if disease subsequently develops.
 - If the initial application is made too late (after disease is well established and severe), the fungicide will not prevent loss (the damage has already been done).
 - Protection of the flag-leaf from infection and protection of the plant during the grain-fill period is the goal.
 - Under continuing severe disease pressure, more than one application may be necessary to adequately protect susceptible varieties.
 - Label restrictions for timing of application vary by fungicide class (triazoles and triazole/strobilurin combinations vs strobilurins). The following are examples of permissible fungicide application timings:
 - Tilt (Syngenta) - No later than Feekes 10.5 (wheat only)
 - Stratego (Bayer) - No later than Feekes 8
 - Quilt (Syngenta) - No later than Feekes 10.5 (wheat only)
 - Headline (BASF) - No later than Feekes 10.5 (heading completed, beginning of flowering)
 - Quadris (Syngenta) - No later than Feekes 10.5