

## Small Grains Insect Management Update

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Insect thresholds in small grains are determined for years where you expect good, quality yield and prices are good. When prices and quality are down insecticide use may not be economically justified.

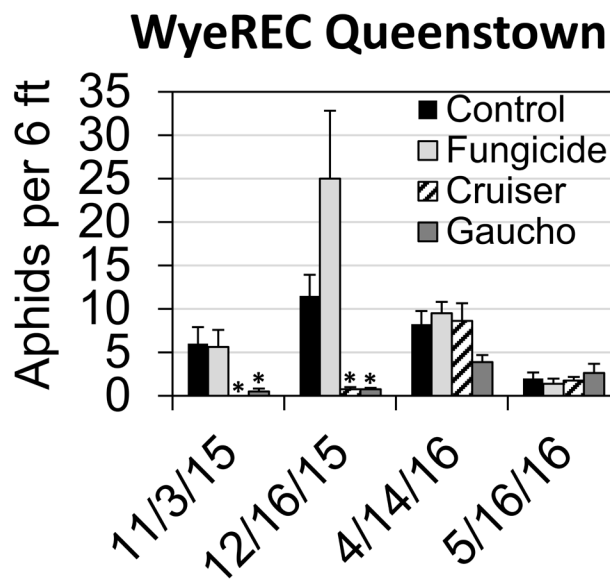
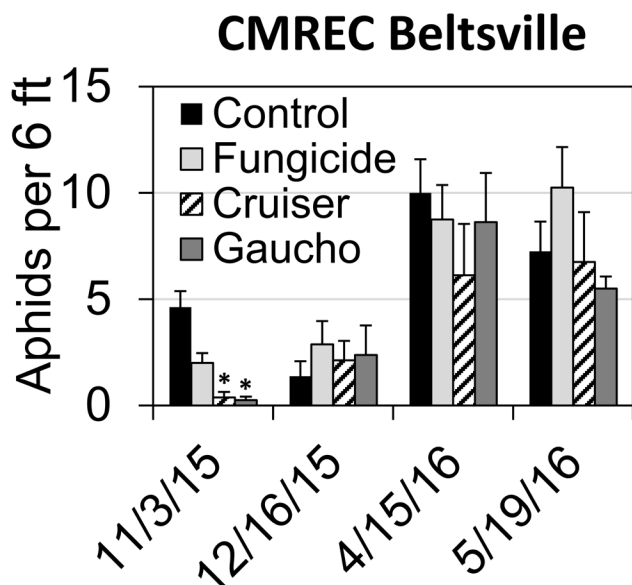
|                           | Fall  | Spring   | Management   | Notes   |
|---------------------------|---|--|--|---|
| <b>Aphids</b>             | 50 aphids per foot, <b>unless viruses are present</b>               | 100-300 aphids per foot, 25 per head                     | 1 predator to every 50-100 aphids  | Cool, dry spring allows them to escape predators        |
| <b>Armyworm /sawfly</b>   |   | ~1 per row foot  | Declining populations due to Bt crops and weed-free fields               | Head clipping damage                                    |
| <b>Cereal leaf beetle</b> |   | 25 eggs/small larvae per 100 tillers with more as larvae | Thick healthy stands   | Large larvae feeding on flag leaf cause the most damage |
| <b>Hessian fly</b>        | This pest is still out there so avoid planting before fly free date |  | Once infested no controls  | Watch for lodging damage                                |
| <b>Wheat curl mite</b>    | Vectors wheat streak mosaic virus.                                  |  | Destroy volunteer wheat at least 2 weeks prior to planting. Plant later. | Mild winters and warm weather (75-80°F)                 |

Foliar insecticides: Always read and follow label directions. Pyrethroids (Group 3A) such as Baythroid (beta-cyfluthrin), Mustang Maxx (zeta-cypermethrin), Tombstone (cyfluthrin), and Warrior II (lambda-cyhalothrin) will work for most small grain insects (except hessian fly and wheat curl mite which cannot be controlled chemically).

## Small Grains Research Update- Insecticide Seed Treatments

Aditi Dubey, Maggie Lewis, Galen Dively, and Kelly Hamby

Do insecticide seed treatments (neonicotinoid active ingredients: Gaucho®, imidacloprid and Cruiser®, thiamethoxam) improve yield and pest suppression in corn, soybeans, and wheat? We are also looking at potential non-target impacts of using these treatments in the same soil year after year (3 yrs).



Insecticide treated seed (Cruiser and Gaucho) significantly (\*) suppressed aphid populations compared to bare seed (Control) and seed treated only with a fungicide (Fungicide) for winter sampling dates. No difference was seen in spring aphid or cereal leaf beetle populations. Yield benefits will be measured at harvest. **Research funded by MGPUB and MSB.**