Field Notes

August 2, 2013

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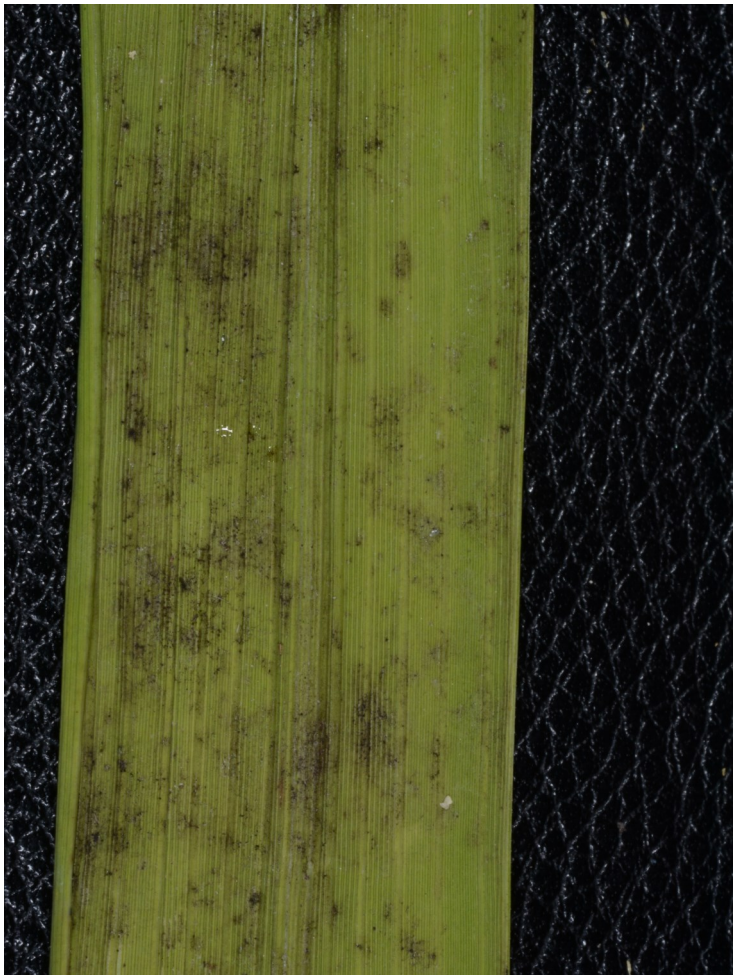
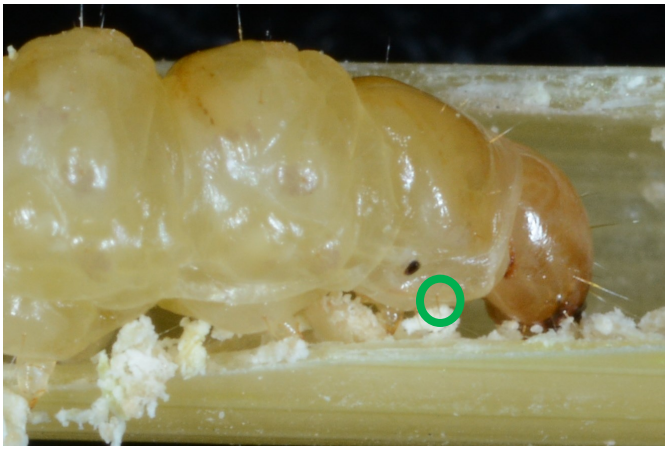
It did not seem like it would ever happen, but like you we finally started harvesting. Our first verification field to be harvested was water seeded Mermentau. It was one of the fields planted from a lot of low germination seed resulting in some weak areas of the field which was compounded by duck feeding damage. The field averaged 6306 pounds per acre (38.9 barrels or 140 bushels) at 17.7% moisture. While the yield was a little disappointing the test weight was 48 lbs/bu and the sample was excellent. I think the areas of normal stand were probably yielding around 7000 lbs/A.



Dr. Groth told me both he and Dr. Linscombe have had several calls about "black dust" associated with harvest. Dr. Groth said it is not kernel smut or black kernel or false smut. The problem is shown on the leaf at left which he collected from his plots on the station.

It is sooty mold, a superficial fungal growth on the surface of the leaves. Usually sooty mold is associated with citrus and gardenias and occurs when white flies or aphids leave a sugary sticky residue on the leaves that provides an ideal environment for some fungi to grow. If heavy enough it can cause problems by blocking light, but does not affect rice. For some odd reason there is a lot of it on rice leaves this year. Thus the "black dust" experienced when harvesting.

We continue our discussion of borers with images of the Mexican Rice Borer (MRB). The top photograph illustrates the broken lines and light head capsule characteristic of this borer. The next two photos are of the pupa of this insect. The second photo is a lateral view and the third is a ventral view. Look carefully and you can see the developing antennae and legs of the moth. At right is a close-up of the thoracic region showing the single seta characteristic of the MRB. Remember the rice stalk borer has two setae at this location.



Light head capsule, broken lines, one seta—MRB.

Dark head capsule, continuous lines, two setae—rice stalk borer.

Earlier this week we were called to look at a poor yielding field of Jazzman-2. Close examination of the sheath shows the classic net blotch phase of Cercospora which derives its name from the dark staining of the cell walls in contrast to the lighter tan areas within the cell walls. This is also the phase most responsible for yield reduction because damage to the sheath prevents movement of nutrients to leaves and carbohydrates to the grain. (see Field Notes of August 9, 2006) Below that image is one of a group of plants. The upper right photograph is of the affected field. It immediately brought to mind the fields affected in 2006. In that year Dr. Groth speculated that the epidemic probably occurred because of the large population of volunteer rice that survived the winter. The lower right photo shows an adjacent field of volunteer rice harvested twice last year and once this year and is heading again. It is also almost certainly the source of this Cercospora out break.