

Field Notes
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Below are two photographs showing another field exhibiting phosphorus deficiency symptoms. We did verify phosphorus deficiency in the field shown last week when the farmer called to tell me it was responding to an application of phosphorus to the field. The field shown below is also exhibiting similar symptoms, but because it is very dry instead of damp we see more firing of the lower leaves. The symptoms that really give it away are the lack of tillering and strong upright angle of the leaves. Once you see the symptoms you can almost diagnose it from the truck. Again, as in the case of the field discussed last week, the field was leveled pretty hard. An application of phosphorus containing fertilizer should correct the problem.



From a distance firing lower leaves cause a yellowish cast to the field and the absence of tillers presents bare soil. Upon closer examination the very upright leaves and firing lower leaves are obvious. The reason the leaves are so upright is that they have not attained their maximum length in comparison to their width (aspect ratio). Normal leaves would have a much longer blade which would not be able to remain at the sharp angle of inclination shown here; they would bend about midway along the length of the blade.



The three photographs on this page exhibit a growing problem in rice production, one that is giving me and Dr. Webster a lot of extra work. It is glyphosate drift. It is a real pain to us, the farmers whose fields are affected, the applicators, the other farmers and the crop insurance folks. We have so many affected fields I would be surprised if we could find a rice field from St. Landry parish northward that did not have some glyphosate on it. The stuff moves especially when it is applied when it should not be. Last week I watched a crew load a ground rig in wind blowing from 10 to 15 miles per hour. I have also watched ground rigs operating with their booms way too high. Most sprayer tips are designed to create the proper pattern 17 inches above the target, not 3 or 4 feet. Aircraft operators are faced with even greater difficulties. This spring has been one of the windiest in my memory leaving very few days truly suitable for spray work. The top left photograph was taken in one of our verification fields.





The aircraft shown above was applying Clincher herbicide to our verification field in Vermilion parish. The label states it should be applied at 10 gallons per acre. Based on what is visible here I think we got the appropriate amount. Don't call me about how lower rates work just as well, I've heard all of the arguments and understand the difficulty aerial applicators face in remaining profitable. We are following the label requirements.

The other thing I like about this application is the use of one of the few radial engine biplanes still operating. Years ago I saw an interview with Kelly Johnson who was the head of Lockheed Aviation's Skunk Works. This was the secret branch of Lockheed responsible for the development of the U2, SR71, and Stealth Fighter among other accomplishments. Johnson said the next great aviation development would be a good ag plane. That prediction was never fulfilled. It is my opinion that most of the aircraft used in ag work today fly too fast. This forces pilots to fly higher and pull up sooner to stay alive. It also compromises application – in my opinion. The plane shown here was working in the 80 to 90 miles per hour range down on the deck. It just makes sense that lower and slower will get more spray on target.

Besides, I just enjoy listening to the old round engines. Turbines are certainly more reliable and have a much better power to weight ratio, but comparing the sound of the two is like listening to a Harley Davidson motorcycle compared to another brand.

OK. I'm off my soap box and back to the legitimate stuff.

Last week I mentioned a field in Jeff Davis parish that Dr. Natalie Hummel and county agent Eddie Eskew visited. There they found symptoms on plants like the one shown at right then began searching for the cause. I went out there with Eddie to see for myself and try to get a few photographs of the chinch bugs. They were everywhere. The adult shown below was in the area we normally expect to find them, near the base of the plant. The immature chinch bugs shown on the following page are two different instars. The one on the left with the red abdomen and distinct whitish band is younger than the one in the second picture. The older insect has started to change to resemble the adult it will become. The immature forms have no wings. All of these insects are very small, especially the first instars. The youngest instar was about 2 to 3 mm long and a half mm wide. They seek the cover of leaf sheaths and cracks in the soil so are often difficult to find. Injury symptoms can resemble herbicide injury.





While Eddie and I were digging around the base of the plants we found the rice water weevil adult shown at left. The field was drilled and had never been flooded. Leaf scarring from weevil feeding was evident, but we did not find a weevil until we found this one.

A couple of years ago we ran into a similar situation in a verification field where we saw lots of leaf feeding signs without the presence of weevils until we found adults hiding in the mud near the base of plants. Since then I get really nervous when we suspect rice water weevils are there based on feeding signs, but cannot find them. I feel better when they are discovered. Then I know we are both justified in applying an insecticide and have probably not missed them by incorrectly timing the application.