

Field Notes
May 23, 2006
Johnny Saichuk



We finally had a chance to address the DD50 program complaint that the predictions were running about two weeks late on green ring (internode elongation). Jeremy and I collected raw weather data from the on-line program and the Rice Research Station. Then we looked at predictions for some verification fields compared to our observations. Sure enough there was a 10 day discrepancy between the old DD50 program prediction and the on-line version. The new program was calculating a date for drain for straighthead then adding 10 days to that date for internode elongation when it should have been calculating a date for green ring then subtracting 10 days to anticipate draining and having water back on the field by green ring. Dates of other stages after green ring should not change. The problem was easily corrected by Sam Razi once we could tell him what was going on. He has also changed the date on the report from 2005 to 2006. We thank you for your patience.

Last week we looked at several fields that likely had glyphosate drift on them even though the nearest applications were often quite a distance away. The combination of young rice stressed by lack of water and a low dose of glyphosate was fatal in some cases we saw. If there is any consolation young rice is less sensitive to injury than rice at mid-season. Even though larger rice does not die, reproduction is interfered with resulting in distorted panicles, poor seed set and lower yields. If young rice is not killed it often comes back with only a delay in maturity as evidence of being hit. Obviously, dose is an important consideration as is health of the plants when the event takes place.



If you wonder about how chemicals can move long distances in irregular patterns take a look at the photograph on the preceding page. Dr. Linscombe and I stopped and took this picture when en route to a problem field last week. When sprayed materials hang up in a layer of fog like the one above it can be carried in unexpected patterns and destinations beyond normal considerations. One university I attended offered a course in agricultural meteorology. I wish I had taken it so I could understand these phenomena.



The two photographs above illustrate a problem we encountered in one of our verification fields last week. We should have established a permanent flood by now, but have not been able to because of problems like this one. The soils in this area have a history of testing very high in phosphorus, but frequently rice will exhibit phosphorus deficiency symptoms and in some cases respond to a post flood application of phosphorus. This field was laser leveled last summer adding to the complications. In anticipation of the possible phosphorus deficiency we used diammonium phosphate (DAP) as a source of starter N instead of ammonium sulfate.

Last week we added an application of zinc chelate to try to alleviate the effects of lower than normal temperatures which often manifest as phosphorus or zinc deficiencies. Zinc plays various roles including the utilization of both nitrogen and phosphorus. So far response has been disappointing. Some areas have greened up fairly well while others are still struggling. We will apply herbicide, nitrogen and establish a flood later this week.



The two photographs above were taken in northeast Louisiana last week. The photograph on the left shows a nearly barren paddy in the foreground while adjacent paddies above, to the left and to the right (out of view) are green and growing. A couple of seedlings from the damaged area are shown in the photo on the right. The variety is CL131 and the only herbicide applied (that we know of) is Newpath. I honestly do not know what happened here. If it is glyphosate drift it sure has an odd pattern. The extreme dryness of the field could play a role here. I'm open to suggestions.

Take a good look at the pictures on the following page because you will probably not see this problem much longer if at all. We looked at several fields on the same farm where Arrosolo had been applied with a ground rig fairly early. For some reason molinate injury occurred. I had not seen this problem in quite a few years and because of its decreased use associated with the introduction of newer materials and its phase out, may not see it again.

Swollen bases, brittleness, excessive tillering and a grayish-green coloration of affected areas are all characteristic of molinate injury. The seedling is exhibiting classic “buggy whipping” symptoms. Buggy whipping or sometimes called “fishhooking” can be symptomatic of a number of problems. In all cases the leaf sheath from which the newest leaf is attempting to emerge is rolled up too tightly. As the new leaf grows the tip gets caught in the tightened leaf sheath and the remainder of the leaf expands so that the lower portion passes the upper creating the symptom manifested.

