

Field Notes
May 13, 2011
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Above is the Old River Low Sill control structure. The photo was taken Tuesday afternoon and does nothing to really express the power of the water. The sound alone was impressive. The fish shown in the circle is a Silver Carp or so I was told.

At right is the gauge just beyond the control structure. I found the similar photos I took in 2008 and in April of that year it reached 62 feet at its highest level. This time it is still rising. I feel confident the levees will hold because other than the water in the river it is dry and the levees are firm. I hope I am right.

On the next page is a photo of the medical center on the Vidalia side of the river. There should be a river gauge in the picture, but it had already been disconnected because it is electrically operated.





Below are two photographs of Broadleaf Signalgrass. If you look at the one on the left without the benefit of the one on the right you might think you are looking at Fall Panicum. The ligules are very similar which can make identification of the seedlings difficult. The image at right is of a large plant which made the identification positive. One of the confusing characteristics of this grass is that very young seedlings may have heavy pubescence (hairs) while the more mature plant is nearly glabrous (hairless). You might be able to see the sparse hairs on the surface of the leaf at left, but when you look at the plant as a whole it has very little pubescence. If you check the key developed by Dr. Webster you will see the features used to separate the two in the seedling stage is the presence of hairs on the lower surface of the Signalgrass leaf and the prominent offset mid-vein of Fall Panicum.





It has been a long time since we have seen the problem depicted above. John Fontane called to say he thought he had found a case of Delayed Phytotoxicity Syndrome. This is the problem most often associated with the use of Bolero herbicide in water seeded rice especially when there is repeated use of the herbicide from one year to the next. Those criteria were met in this field. The problem develops after the field has been flooded long enough to become devoid of oxygen or anaerobic. Bacteria in the soil break down the herbicide producing products that are toxic to rice. That is what the name of the problem implies: it is delayed because it takes time for the soil to become anaerobic; phytotoxicity means it is toxic to plants such as rice; syndrome simply means a host of characteristics are associated with it. The irregular pattern shown above is very typical. The only remedy is to drain the field till cracking. It is **not** the same as Localized Decline.



At left is a close-up view of a couple of affected seedlings. The one at left exhibits the classic “fishhook” symptom. What actually happens is that the leaf sheath of the leaf below the one trying to emerge is wrapped so tight in response to the injury that the new leaf cannot emerge correctly. Tissues expand, but the leaf tip remains hung up in the very tight leaf sheath. Older leaves begin to die, tillering is reduced or stops and seedlings may die. These plants were the same age as the much larger and healthier plants in the greener areas of the first photograph. It was actually approaching green ring. It is unlikely that plants affected to this extent will recover in time to produce decent grain yield. By draining the field the less affected areas will recover to some degree and yield may not be reduced severely. As a whole the field yield is definitely reduced.



Dr. Dustin Harrell found a field that had been laser leveled very hard resulting in very low soil test readings for all major nutrients. This has provided an excellent demonstration of the need for these nutrients and will permit him to make more accurate estimates of the amount needed to produce maximum economic yields. The plot at left has no phosphorus while the one at right is fertilized with phosphorus. I will try to follow this throughout the season. Photo was supplied by Barrett Courville.

Shown at right is a pair of Black-bellied Whistling Ducks (formerly called Black-bellied Tree Ducks) and are first cousins of the more familiar Fulvous Whistling Duck (formerly called Fulvous Tree Duck and more commonly called a Mexican Squealer at least in south Louisiana.) I took the picture a few miles below Deer Park in Concordia parish. There were about 6 pair feeding in the ditch on the edge of a corn field. Water in the ditch is seep water from the Mississippi River. They were probably feeding on the Sagittaria growing there. One species is called duck potato.

