

Field Notes
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Last week we were asked to look at a couple of fields in Vermilion parish where they first thought they had some sort of nutrient problem. The two photographs above show the symptoms in a dramatic fashion. It looks a little like Command injury from a distance, but up close is not at all the same. We do believe it is herbicide injury. The left photograph is probably where the spray boom overlapped on the tips. The plant in the photograph at right is typical of the most extreme symptoms. The variety is a hybrid. The first herbicide application was a tank mix of Newpath + Ricebeau + Permit. The second herbicide application was Newpath alone. The symptoms showed up after the permanent flood was established. Dr. Webster took a look at the photographs and said he suspects it is Newpath injury. We discussed the possibility of Permit injury because in other states they have seen what they feel is Permit injury and the symptoms are similar. In plots on the Rice Research Station similar symptoms have shown up in Dr. Linscombe's plots and appear to have a genotype association. Dr. Webster has obtained seeds of those genotypes exhibiting symptoms and will test them for sensitivity to Permit and possibly other herbicides. I think the environment is also interacting because the same combinations have been applied to the same varieties without the appearance of these symptoms. I'll let you know when we know.

Every year with increasing frequency we see phosphorus deficiency in rice. The field at right and the individual plants in the bottom photograph illustrate typical phosphorus deficiency symptoms. The stand appears thin from a distance and in severe cases the field may take on a yellowish cast. Lack of tillering produces the thin stand appearance and lower leaves dying give it the yellowish cast. When individual plants are examined the leaves are very erect, upper leaves may be a dark blue green while lower leaves are yellow.

In this case it was probably induced by high pH even though phosphorus had been applied. A number of years ago we noticed a similar situation where phosphorus soil test levels were in the very high range, yet phosphorus deficiency showed up. We were able to confirm the deficiency by applying phosphorus fertilizer and observing a clear response. An odd facet of the problem was that the symptoms did not become clearly visible until the field was either flooded or the soil completely saturated by rainfall or flushing.

Several years ago a small plot study which compared various sources of phosphorus applied pre- and post-flood at different rates was conducted. Surprisingly, in these situations the source of phosphorus and rate were less dramatic than the time of application. Post-flood applications produced the greatest response. We were always hesitant to publicize this practice because it only fits special circumstances. In nearly all other cases phosphorus should be applied prior to flooding for best results.

The deficiency is easy to confirm. Apply about 1 pound of either 18-46-0 or 0-46-0 to a 20 ft. by 20 ft. area. In about a week the results should be obvious.



The series of three photographs below were taken in a field where the farmer called to say only that his plants were dying. He did say he did not think it was herbicide injury. When we arrived at the field we saw plants that appeared from a distance to be wind damaged or dehydrated. Plants appeared weak, spindly and had lots of dead leaves. Closer examination revealed very heavy adult rice water weevil feeding signs. Even though the field was dry at the time we checked it, it had been flushed the week before. The farmer reported that the symptoms appeared right after flushing. Flushing probably attracted the weevils to the field and draining only aggravated the dehydration.

Within a few minutes we could tell that nearly every plant had at least one adult rice water weevil on it. Most of them were hiding in the whorl of the leaf. This is the second field this year where we recommended an insecticide for control of adult rice water weevil; the other field is one of our verification fields.

In this case the feeding pressure was so heavy that plants were drying out because leaf tissue had been exposed and was simply losing moisture through the wounded areas. This is not a common problem, but not an extremely rare one either.

When looking for rice water weevils in drained fields where there are feeding scars, but the adults cannot be found, look carefully on the soil around the plants. A defensive mechanism the weevils use is to drop to the ground and “play possum”. Sometimes we just sit still for a minute or so and will begin to see them start crawling around.





The two photographs above show southern watergrass as it appears in one of our verification fields. The top left photo was taken on the edge of the field where the herbicide application was light and the flood shallow. It is thriving. On the right is the same species, but it received a full dose of .4 ounces of Regiment plus 4 ounces of Newpath followed by 4 ounces of Newpath. It is nowhere near controlled, but it is as good a job of suppression of this grass as I have seen. Years ago I recommended Arrosolo followed by granular Ordram at mid-season and got some suppression out of that combination, but nothing we have actually controls this pest.

The bottom right picture is of robust sedge that the farmer said is getting worse each year. I thought it was Spearhead, but he said he knew Spearhead and this was not it. When it heads we'll figure it out.

