



Shown above is a problem we see at least some of every year. It requires looking at both the roots and the panicle to determine the cause. We determined this to be 2,4-D injury caused not by incorrect timing, but because the herbicide was applied to a field with too little water to protect the crown of the plant. Another clue was greater injury to the tillers than to the main stalks which again points to the crown being hit by the herbicide. Uptake resulted in the formation of odd shaped adventitious roots and panicles emerging from the side of the flag leaf sheath. Some of these had significant enough damage to reduce seed formation; however most of the panicles were flowering normally in spite of the irregular exertion. Even though 2,4-D is considered a broadleaf herbicide it can and does affect grasses like rice. I have seen similar injury on both corn and grain sorghum when 2,4-D was used over the top on them. How much yield might be affected will depend on how extensive the problem is on a whole field basis.

The first photo on the next page also appeared in the May 14th edition of Field Notes. It showed injury from overlapping Grasp herbicide. The second photo was sent to me later to show the significant recovery. The field rep did acknowledge the reduction in root mass was still apparent. If the grower has a yield monitor on his combine it should reveal whether it will affect yield.



The plant shown at right is exhibiting symptoms that could be the result of several things. The rust colored leaves can be associated with zinc deficiency (bronzing), localized decline or as in this case iron toxicity.

The photograph below shows heavy iron accumulation on debris under the water, a common site near water wells throughout much of the state.

One possible solution is to aerate the water as it enters the field as is done when pumping well water onto crawfish ponds. Even though the water looks crystal clear it has low oxygen levels and the iron in it is in a reduced form. According to Dr. Harrell reduced iron is more mobile; therefore it is likely to be taken up rapidly by the plants. If oxygen is added to the water much of the iron is converted from reduced to oxidized form which is less toxic and less likely to be absorbed by the plants.



There are indications that this could solve the problem because the problem decreases as it gets farther from the inlet. In many cases I have seen small paddies deliberately set up near the inlet to serve as a sacrificial area. Once water moves through this paddy the others are not affected or at least not as severely.

Keep in mind we have not conducted research to support this recommendation; we are relying on past experience and some knowledge of the behavior of iron.

The symptoms are very similar to Localized Decline because Localized Decline is also associated with high levels of iron and aluminum uptake by rice plants. The difference is that the exact reason this is happening is still undetermined. We do know high levels of zinc, especially where soil pH is high will correct the problem in some cases.





When I saw the field shown above I asked the farmer if he was growing ornamental rice. He has a good sense of humor and said if I thought he could sell it as such he would certainly be glad to grow more of it. This is one of those fields that had CL151 in it two years ago where we saw a significant number of resistant off-types. We never did reach complete resolution of the problem and I expected to get more calls about it because we are rotating back to those fields this year. This stuff ranges from purple to green and hairy to smooth. I will try to return to the field when it heads out. Luckily this is only on a small acreage.

At right is a common mid to late season observation about which I have had several calls in the past week or so. Most want to know if it is worth applying a herbicide at this point. The grass is sprangletop. It is often described as slender, single stalked and heading out. Rice is usually at or beyond green ring. If it is beyond green ring most herbicides are restricted from being used. I do not like to use any herbicides beyond green ring regardless of problem because of the poor results and potential injury to the crop. If it is near green ring and no more prevalent in the field than is shown here, I would not do anything because at this point any yield loss has already been incurred. If the crop is going to be second cropped and the pressure is heavier and it is before green ring, then I might consider spraying. It is really more cosmetic than competitive at this point.



It is starting to get hot. If you do not believe me then take a look at the photo at right. The farmer had just stoked his rice field with crawfish. Because the flood was shallow the water was both hot and probably had low oxygen levels. There were crawfish all over the place climbing up onto rice plants to get out of the heat and get some oxygen.



Just had to throw in a bird picture since I had a little space to fill. I still think the Purple Gallinule is one of our prettiest birds. I would still give number 1 to the male wood duck.