

Field Notes
April 4, 2008
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Here we go again. Last year our unseasonably warm March got things going early only to be brought to a screeching halt by record cold in April. This year the up and down temperatures of March kept a lot of farmers out of the field including us in the Rice Research Verification Program. We finally planted our first field on March 20th when we flew pre-sprouted seed into a flooded, stale seed bed. The top paddy looks normal, but the bottom two do not as can be seen in the photograph below. The green stuff is not rice; it is a rush in the genus *Juncus*. An application of glyphosate only teased it a little.

We may have made one of our most important decisions on that field when we recommended holding the water an additional 24 hours. There were two reasons for this decision. First, temperatures were expected to drop into the low 40's that night. Second, we were not satisfied with the amount of sprouting of the soaked seed. We felt the additional soak time and protection the water would provide justified the decision.

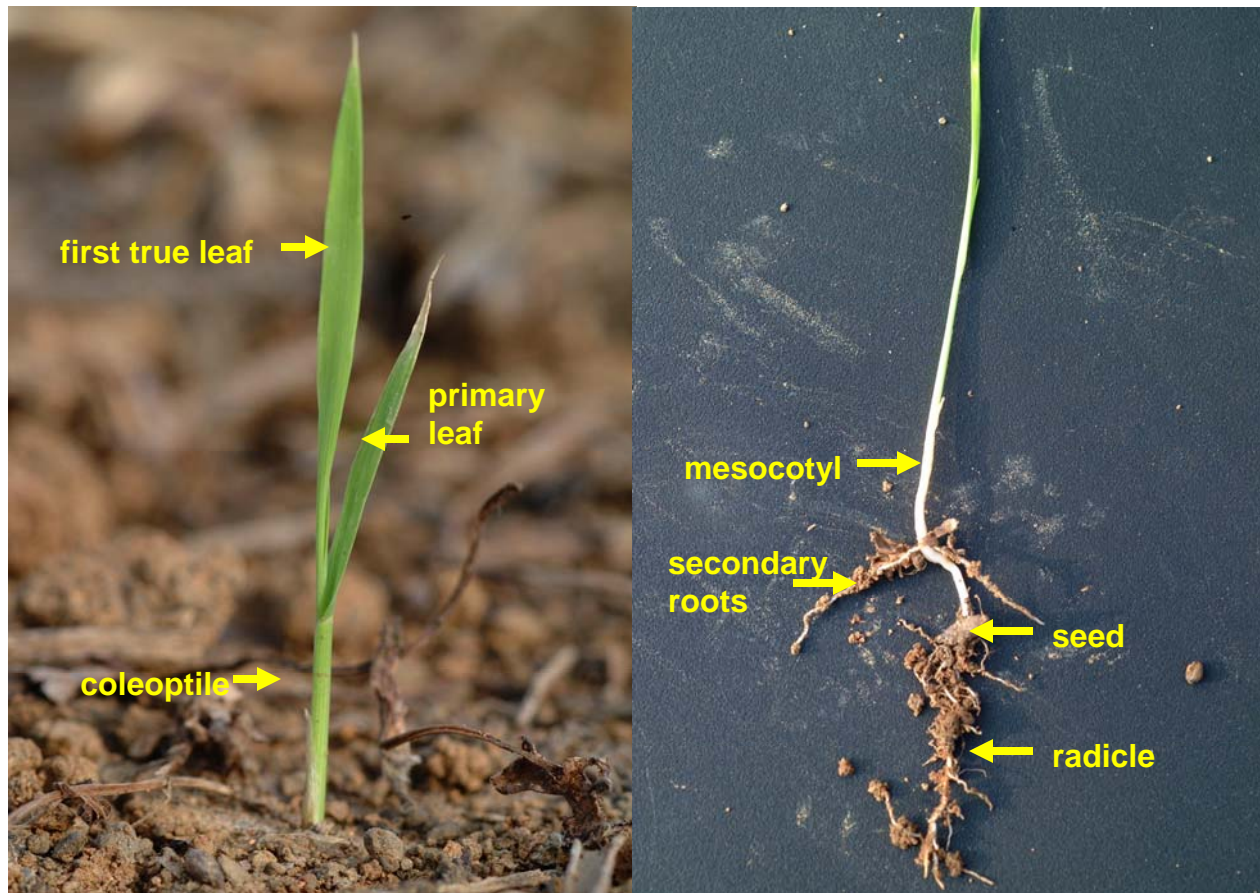
Because of the history of red rice we knew we would have to flood as soon as possible. If anybody has a good means of taking out the rush in spiking rice we sure wish they would come forward. We consulted our own recommendation information, labels, talked to dealer reps and consultants, and then gave up. If what we are trying works we'll let you know. If it does not ...



Another field was planted in a true no-till situation. We'll have to check the records, but this may be the first field in the verification program planted in this manner. It definitely is the first planted into grain sorghum stubble. In the left hand photograph Kenneth Olivier is drilling into clay soil. The autosteer feature of the tractor sure helps when planting into a field with contour levees. Even though soil moisture was marginally adequate it caused problems with closing the seed groove so we recommended he flush following planting. The photograph to the right was taken a week later. Lots of sprouted seed could be found just below the soil surface. We expect it to be fully emerged by the time we check it next week.

We have not planted following grain sorghum or corn so we do not have any experience with possible atrazine carry-over. Because the winter was a wet one, we really do not expect any problems.





I hate to use red rice, but it is the most advanced rice we have in any of our verification fields. Both photographs were taken in Concordia parish where the rice was drill seeded into a stale seed bed. The farmer knew there was a history of red rice so selected CL 161 as the variety. It should be emerged by the time we return next week.

The seedling on the left is a good example of rice that is almost one leaf rice. The first true leaf is not quite fully expanded. The primary leaf looks a lot like a true leaf but is not. The coleoptile is the first part to break the soil surface and actually protects the primary leaf.

The plant in the photograph on the right shows typical characteristics of drill seeded rice. The radicle is a small root emerging from the seed. Not labeled because they are not clear enough are the tiny roots near the seed called seminal or seed roots. Above them are secondary roots. The name I was taught was coronal (crown) roots. At some point the term secondary roots was adopted. They will become the root system of the plant as the radicle and seminal roots degenerate.

A water seeded seedling would have the same characteristics of the seedling on the left, but would lack the mesocotyl of the seedling on the right. That is a consequence of germinating on or near the soil surface. It also explains why some herbicides can only be used on drill seeded rice.



The two seedlings shown above can be compared to the labeled seedlings on the second page. The one on the left is similar to the one with the labeled root system. It germinated from about an inch below the soil surface. It has a radicle, mesocotyl and secondary roots. The seed roots were damaged trying to remove soil. In contrast, the seedling on the right germinated very near the soil surface. (Isn't red rice versatile? This field was in soybeans last year and rice two years ago.) Because this seeding began near the surface it appears much more like water seeded rice would. There is no well developed mesocotyl.

We travel up along the Mississippi River above Morganza every week. I have not seen water levels like we saw last week since 1975. The flow through the Morganza spillway was so impressive we had to stop and take a couple of shots.



The water level in the center of the channel was actually higher than near the bank. Lots of power. The gauge at Natchez read 50 feet and rising.