

Field Notes
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A lot of rice in south Louisiana is reaching or just past internode elongation (green ring) and will soon be at panicle differentiation (PD). Often panicle **initiation** is confused with panicle **differentiation**, two separate events entirely. Panicle initiation occurs very near internode elongation and cannot be detected effectively in the field, but can be seen when tissues are removed, stained and viewed under a microscope. So you won't see any pictures of it here.

Below is a picture of a plant with the first internode (green ring) now elongated about $\frac{1}{2}$ inch. This is about the cut off time for using 2,4-D and quite a few other herbicides as well. The second photograph is of a plant exhibiting PD. The tiny panicle can be seen relatively easily with a 10X hand lens or sometimes with the unaided eye. PD is important because it is also used to time certain activities such as fungicide application.

Research by Dr. Don Groth has shown foliar fungicides should not be applied earlier than PD +5 days. In years when sheath blight has been severe in some of our verification fields we had to apply fungicide this early and hope it would protect the crop for the rest of the season. It did, just barely.



One-half inch internode elongation



Panicle differentiation (PD) sometimes called panicle 2mm stage

A couple of other interesting things I have seen in a few fields this past week or so are shown in photographs below. The first is of a rice plant that appears variegated. This is not a disease or herbicide injury or the result of insect damage. It is a common mutation called a chimera. If you are old enough to remember some of the old movies based on mythology there was a creature that had a man's torso on a horse's body. The creature was one type of chimera. Because scientists like to use Greek and Roman terms this type of mutation was named to reflect its appearance. It is common and nothing to be concerned about.

The second photograph shows a plant with a similar color pattern in that one half of the leaf blade is sort of orange. This is the result of insect damage, specifically the feeding of the black rice bug. The black rice bug, sometimes called "turtle bugs" has been around a long time. Only recently have we noticed damage frequently enough to pay attention to them. We have a good discussion of them under the insect section on our web page at: www.lsuagcenter.com/en/crops/crops_livestock/rice . (Note the underscore between crops and livestock.) I don't think they are worth treating, but you should know about them so you won't confuse their injury with something else.



The plant above is exhibiting a type of mutation called a chimera.



The plant above is showing injury caused by black rice bug feeding.

Below is a photograph of the black rice bug on the left. The photograph on the right may be of a rice whorl maggot found by county agent Eddie Eskew in our Jeff Davis parish verification field. I use the word “may” because its identity has not been confirmed by Dr. Castro our extension rice entomologist.



The common name of the maggot is still being discussed (at least that is the last I heard). Regardless of name, it is an insect related closely to the leaf miner, but prefers drained fields and tunnels into the whorl of the plant. In severe infestations it can reduce stands significantly. To search for them look for plants whose newest leaves appear damaged. If you pull on this leaf it usually will come free similarly to herbicide injury. The insect above is about 1/64 inch in diameter and about a ¼ inch long. It can be found on the leaf pulled free of the growing point. Let your local county agent know if you find them or even if you think you have found them.