



Dr. Groth sent these pictures to me to exemplify the similarity of symptoms on rice panicles affected by different problems. He took these in his plots last week which means they are likely to be in your fields too.

Bacterial panicle blight is characterized by the types of florets shown here. The upper part of the grain is tan, the middle has a brown discoloration, and on some the base of the grain is still green. When the disease overwhelms the grains some of these zones disappear. The other important identifying feature of bacterial panicle blight is the green branches of the panicle.

In contrast sheath blight on the panicle causes a mixture of brown and tan colored grains without distinct zones. The panicle branches take on the same discoloration as the grains instead of remaining green.

Physiological effects usually cause nearly white grains as we mentioned last week. Grains may be distorted or normal.



I showed this photograph in the May 13th edition of Field Notes and said it was an example of delayed phytotoxicity syndrome associated with thiobencarb the active ingredient in Bolero and one of the active ingredients in RiceBeau. That is what I thought it was based purely on the symptoms. Following my visit, samples of both soil and plant tissue were obtained and analyzed. As it turned out, Newpath was detected. I do not want to speculate on how it got there, but I did not expect it to be present. Good lesson. Many herbicide injury symptoms are so similar an analysis of tissue and/or soil is needed to identify the problem.

In the June 3rd edition I used the photograph at right stating it was either a nutrient deficiency or toxicity and that samples would be taken that should reveal the problem. Well, I was wrong again. Both soil and tissue samples from yellow plants and healthy plants and their respective growing sites were obtained and sent to a private lab.

Dr. Harrell and I both studied the results of analysis and are no closer to solving the problem than we were before the sample results came back.

I would have bet on calcium deficiency, but the lab results do not support that conclusion. The only nutrient that might be involved is manganese (not magnesium) which is very much a micronutrient. It is too late to apply any manganese to see if the crop responds. We will have to remember the symptom and try to be ready if it happens again.



At right is a photograph of the flower of Creeping Spot Flower (*Spilanthes americana*) which has another common name I cannot recall. It occurs most in the lower parishes and can be difficult to control when it builds up. Because it is a perennial it is most often a problem in no-till or reduced tillage culture.

The photograph directly below shows the shape of its leaves which resemble somewhat those of *Eclipta* without the hairs on the leaves that make *Eclipta* feel rough. These leaves are smooth.

In the lower right hand photograph is a shot of the stem of Creeping Spot Flower. It lacks the pubescence or hairs also characteristic of *Eclipta*.

Another plant with similar features is *Lippia* sp. which was covered in an edition of Field Notes a couple of years ago.





The two photographs above are part of one farm's solution to unreliable water supplies. They have invested a lot of money and effort into constructing a canal/reservoir system. The pump will draw water from a bayou and fill the canals which will function as both a reservoir and conduit. In several locations culverts are installed to move water from the canals to fields. It will also allow for some tail water recovery.

I have had several calls about salt water use on rice as farmers in southwest Louisiana and a few other elsewhere have either run out of fresh water or will run out in the very near future. I wish I knew the right answer. All we can do is base our recommendation on what research is available. If you would like copies of what we have contact me at jsaichuk@agcenter.lsu.edu and I will send it to you.

The old recommendation of using water of 35 grains per gallon or 640 parts per million (ppm) still stands as the safest guide to follow. However, from all reports many of our surface water supplies have long exceeded that level. Some have asked if rice at flowering is more sensitive than rice in the vegetative stages. I dug through the literature I have and could not find a specific reference to flowering and sensitivity to salt. The guide put together by Mr. Lewis Hill shows an increasing tolerance of rice to salt as plants get older. It does not specifically mention flowering.

The study that lays the foundation for the bulk of our recommendations was conducted in 1920. While chemistry has not changed, varieties certainly have improved since then. Does that improvement include tolerance to salt? I just do not know. In the hasty experiments conducted at the Rice Research Station following hurricane Rita there was no indication of degrees of tolerance among the current varieties.

I am afraid we are conducting salt tolerance studies on a grand scale in southwest Louisiana. Nothing would please me more than to be able to say we can use water with higher salt content than we currently believe.

If the long term weather forecasts I checked today are correct beyond six days out we are supposed to be wetter than normal for the following two weeks or so. I hope they are right.