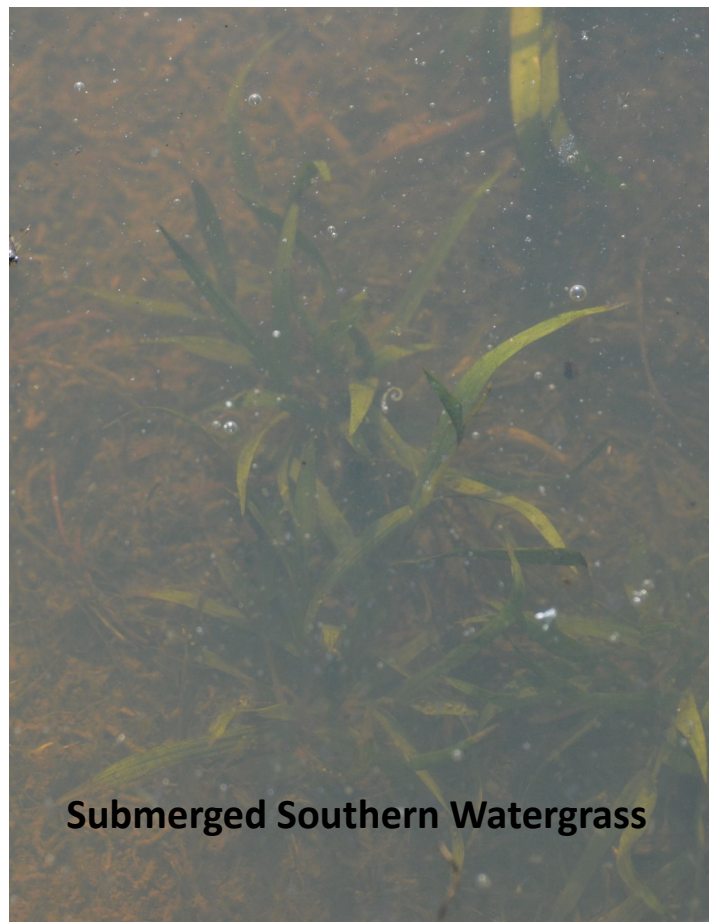




In the photo above are fairly clear streaks which correspond to sprayer overlap. The variety is a hybrid and was sprayed with a mixture of Newpath and Regiment. Regiment is a herbicide that should not be overlapped especially on a hybrid. In the photo at lower left is a close-up of a few affected plants and at right the reason we used Regiment. Several years ago we used the same combination to control other weeds in a field that had southern watergrass in it. We noticed pretty good suppression of it. In this field we have the same problem in one of the paddies. Because the farmer does much of his own spraying with a ground rig we were able to add Regiment to the mix in this paddy alone. We will follow it to see just how well it works. It is a little difficult to assess injury on submerged grass at this point.



**"Fishhooking" from Regiment +
Newpath on hybrid rice.**



Submerged Southern Watergrass



It might not be as clear in this photograph as I would like, but if you look carefully there is a darker green square of rice on the left side of the photograph that corresponds roughly to the yellow tape on the right side. Last week a company rep called and described the symptoms seen above. I suggested he put out two plots of about 20 feet by 20 feet in size and apply 2 pounds of ammonium sulfate to one and 1 pound of urea to the other. He applied the fertilizer Friday afternoon and I took the photograph Monday morning. The plot on the left received the ammonium sulfate indicating a sulfur deficiency.

The photographs below show the symptoms fairly well. One distinction between nitrogen deficiency (shown in the two previous editions of Field Notes) can best be seen in the close-up at lower right. Because nitrogen is mobile in the plant and sulfur is not the deficiency symptoms of nitrogen are most significant in lower leaves while sulfur deficiency appears in the upper or newest leaves first. In this case there is an overall yellow cast to the plants with emphasis on the upper leaves. The bottom line is the plant response to applied fertilizer which is dramatic here.

