



I'm using this venue to distribute information about which I have had a lot of questions lately. Because there has been so little medium grain culture in the recent past and because of the favorable price offered for medium grain rice, quite a few have called requesting information about growing medium grain rice varieties, specifically the questions have been about Jupiter and Neptune.

There is nothing magic about growing medium grain varieties, but like any new variety each may have its own peculiarities. The next two paragraphs are the same descriptions you will find in the publication Rice Varieties and Management Tips 2009 (RVMT 2009). This publication can be downloaded from our web site at: [www.lsuagcenter.com/en/crops\\_livestock/rice/publications](http://www.lsuagcenter.com/en/crops_livestock/rice/publications). You may have to scroll to the second or third page of publications to find it, but it is there. It may be pulled briefly because we are changing the headings on Table 5. The column labeled Brown Leaf Spot should have been labeled **Narrow Brown Leaf Spot** and the column labeled Narrow Brown Leaf Spot should have been labeled **Brown Leaf Spot**.

**Bengal:** (LA) – Bengal is a semidwarf variety that has displayed very good yield potential and excellent milling quality. The milled grains are plumper than other commonly grown medium grains in the South, a characteristic favored for some processing uses. Seedling vigor is good,

and Bengal has displayed good, but variable, second crop yield potential. It is susceptible to blast and straighthead and moderately susceptible to sheath blight. Bengal has also displayed susceptibility to panicle blight.

**Jupiter:** (LA) – Jupiter is a very high-yielding semidwarf medium grain variety. It has consistently out-yielded Bengal by several hundred pounds per acre. Jupiter has a very good disease package, displaying good resistance to blast, panicle blight, sheath blight and straighthead. It has shown good seedling vigor and milling quality. The grain size of Jupiter is somewhat smaller than that of Bengal.

**Neptune:** (LA)—Neptune is a semidwarf medium-grain variety with a very high yield potential and excellent milling quality. It has good seedling vigor and good resistant to lodging. The milled grains are similar to Calrose rice and larger than those of Jupiter. Neptune is moderately susceptible to rice sheath blight and straighthead disorder but moderately resistant to blast. It also has a good second crop yield potential. The second crop potential is also very consistent, which is atypical in most medium-grain varieties.

Twice second crop potential is mentioned. In general medium grain varieties have lower second crop potential than long grain varieties and hybrids. However, second crop potential is acceptable especially in Neptune.

When planting medium grain varieties the seeding rate may have to be adjusted simply because each seed is heavier thus there are fewer seed per pound than the long grain varieties. Table 3 in RVMT 2009 provides the number of seed per pound and the resulting number of seed per square foot at varying seeding rates expressed in pounds per acre. For example 90 pounds per acre of the medium grains Bengal, Jupiter and Neptune would provide about 35 seed per square foot while only 80 pounds of seed per acre of Cocodrie would provide the same seed density.

Fertilization is much like any other variety. Phosphorus and potassium rates should be based on soil tests. Nitrogen rates are based on variety by nitrogen response research. The most recent numbers provided by Dr. Dustin Harrell recommend between 120 and 180 pounds of actual nitrogen (260 and 390 pounds of urea) per acre for Jupiter and between 120 and 160 pounds of actual nitrogen (260 and 350 pounds of urea) per acre for Bengal and Neptune. Because Bengal and Jupiter are more likely to lodge I would stay on the low side at for at least the first year of production or until I learned how that variety performs in your individual situation. Last year Dr. Steve Linscombe said he saw more lodging on the experiment station than he had ever seen in his career. Of all of the varieties in all trials, Neptune was one of the few that did not lodge. If that holds true you should be able to apply nitrogen to fields of Neptune without much concern about lodging.

Based on both field experiences and Dr. Eric Webster's research, Bengal has shown greater sensitivity to Command herbicide than the long grain varieties. In spite of the symptoms observed Bengal often, if not always, out yielded the long grain varieties in the same tests. According to Dr. Webster, the same can be said of both Jupiter and Neptune. I do remember our experience with trying to grow a California short grain variety that was severely injured by Command and did not recover. Dr. Webster also mentioned that most translocated herbicides are

more likely to affect medium grain varieties than long grain varieties. If there are any other specific herbicide problems I am not aware of them.

We also have observed greater sensitivity to rice water weevils in the medium grain varieties. Back in the Furadan days I was working in industry. I was cautioned by Steve Zaunbrecher to not let the weevil numbers in core samples get over 3 per core before pulling the trigger on a Furadan application because of this problem. He was right and I saw this many times in the field. Dr. Michael Stout has verified this to some extent in his research plots. I have not seen any particular association with other insects such as stem borers or stink bugs. I do know stem borers were especially attracted to Maybelle. Whether they will show any preference for these varieties I do not know.

Disease reactions can be found in Table 5 of RVMT 2009. Bengal has problems with blast, panicle blight and straighthead. Some blast has been observed on Jupiter, otherwise it and Neptune have excellent disease packages. This does not preclude the necessity of fungicides. I recommend scouting these varieties like you would long grain varieties and using fungicides in the same manner.

One characteristic of medium grain varieties that separates them from long grain varieties is the longer time required from 50% heading to harvest. In general, it takes about 35 days from 50% heading to harvest in long grain varieties and about **40-42** days from 50% heading to harvest in medium grain varieties. I would not drain them earlier, but just expect them to take a little longer to reach harvest moisture.

I hope this answers some questions. If you need more information please do not hesitate to contact either your county agent or me.