

## **Plant description of Rex rice cultivar**

March 2010

'Rex' rice is a long grain high yielding semi-dwarf cultivar released in February 2010 by the Mississippi Agricultural and Forestry Experiment Station (MAFES). Rex was derived from the cross of Rosemont//Rexmont/IR36 made at the Delta Research and Extension Center. Conventional breeding procedures were used in its development. Bowman possesses the semi-dwarf plant type along with other morphological traits which broadly resemble Southern U.S. long grain cultivars in general. In Delta wide trials, mature plant height of Rex averaged about 41 inches compared to 39 inches for Cocodrie. Rex has good tillering ability and the culms have an erect growth habit. It is non-sensitive to photoperiod averaging about 84 days to heading as did Cocodrie. Rex has exhibited excellent straw strength in small plots trials averaging less than one percent lodging in comparison to Cocodrie which averaged five percent.

The leaves of Rex are glabrous. The husks become straw colored at maturity. The mature grain is glabrous and awn-less under most ordinary conditions.

The ripened grains of Rex are not scented, have a light brown pericarp, and are non-glutinous. The length of rough, brown, and milled kernels of Rex averaged 9.6 mm, 7.4 mm, 7.1 mm for Rex compared to 9.2 mm, 7.3 mm, and 6.9 mm for Cocodrie. Rough rice 1000 kernel weights for Rex averaged 27.6 gm and 24.0 gm for Cocodrie.

The end-use grain quality characteristics of Rex are typical of conventional southern long grain cultivars with intermediate apparent amylose content and intermediate gelatinization type. In two years of field trials, Rex averaged 21.8 % apparent amylose and had an average alkali spreading score of 4, values which are indicative of typical long grain cooking quality.

The good uniformity among the head-row seed increase plots should be indicative that the reconstituted cultivar should be relatively stable. Possible atypical plant trait variations that may occur, but not limited to either singly or in some combination, might include plant height, heading/maturity, grain type and shape, hull color, awns, and pigmentation. Planned annual routine roughing of head-rows and foundation seed fields should steadily diminish the presence of any variants and/or off-types.

The original breeder seed stock tested negative in official private laboratory tests for the presence of Liberty Linked trait using the 35S bar protein.

The same source of seed for Rex rice tested negative for the presence of red rice in official State Seed lab tests.

This cultivar description of Rex may be amended depending on further field observations and information.