

## UPLAND RICE UNDER TILLAGE AS AFFECTED BY EARLY FERTILIZATION OF NITROGEN

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At the no-tillage system (NTS) due the presence of straw on the soil surface, especially grasses, it can cause greater immobilization of nitrogen (N) that may be unavailable to the rice plants. Thus, there may be need to apply greater amount of N at sowing or until the entire N fertilizer should be applied only at sowing. The objective was to determine the effect of timing of nitrogen application on plant height and lodging, yield components, grain yield and industrial quality of rice grains. The experiment was conducted for three growing seasons under field conditions in Selvíria, MS, Brazil. The experimental design was a randomized complete block with six treatments and four replications in three growing seasons. The treatments consisted of the nitrogen management (1. Control, without N; 2. 100 kg ha<sup>-1</sup> of the N applied at sowing; 3. 75 kg ha<sup>-1</sup> of the N at sowing and 25 kg ha<sup>-1</sup> at topdressing; 4. 50 kg ha<sup>-1</sup> of the N at sowing and 50 kg ha<sup>-1</sup> at topdressing; 5. 25 kg ha<sup>-1</sup> of the N at sowing and 75 kg ha<sup>-1</sup> at topdressing; and 6. 100 kg ha<sup>-1</sup> of the N applied at topdressing). It was concluded that plant height, yield components and industrial quality of rice grains are little affected by the nitrogen management. A later application of N provides higher plants lodging. Applying all amount of N at sowing or 75 kg of N at sowing and 25 kg at topdressing provides the highest grain yield of rice upland.

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