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MILLED RICE QUALITY EVALUATION DURING STORAGE UNDER DIFFERENT TEMPERATURE CONDITIONS

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Most of Brazilian consumers prefer to eat soft and fluffy cooked rice, especially when it is stored under refrigeration and re-heated. After harvest, some rice varieties, mainly from lowland system, need some weeks or months to reach the desirable cooking grain quality and normally the chemical and sensory analyses take place right after harvest. In order to check the home storage conditions effect on rice quality traits, five lowland varieties were cultivated in the same field at Embrapa Rice and Beans experimental station and harvested at the recommended point. The rice paddy was dehulled and milled and the milling degree was kept uniform. The milled grains of each variety were equally distributed into plastic bags and stored under three different conditions: room temperature, refrigerator (4-10°C) and freezer (-20°C) during 180 days. The following grain quality analyses were done in the samples each 30 days beginning at the 20-day-after-harvest point to the last storage date: apparent amylose content (iodometric test using a FIA system), gelatinization temperature (alkali test), chalkiness, grain dimension and cooking quality (texture, stickiness, cooking time and yield) by sensory panel. Based on the collected data it was possible to conclude that the storage conditions did not have a great influence on grain quality traits including cooking attributes. So it is possible to harvest rice grain and storage under freezing or low temperature conditions until the lab analyses schedule takes place, without substantially affecting the quality results.