

عنوان مقاله:

Effect of combine forward speed and grain moisture content on yield quality in harvesting stage for tarom and fajre rice cultivars

محل انتشار:

اولین کنفرانس ملی راه کارهای دستیابی به توسعه پایدار (کشاورزی، منابع طبیعی و محیط زیست) (سال: 1391)

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خلاصه مقاله:

Rice is one of the most important grains in providing diet security. Regarding the rise in population, reduction of losses at harvest is crucial. Especially, considering the forward speed and grain moisture content which are two major factors in increasing crop losses have and been influenced by the wastages in different sections. Therefore, This study investigated on Combine quality losses in 3 grain moisture content; 20, 25 and 30% and 3 forward speed; 2, 3 and 4 km/h in harvesting two native Tarom and fajr rice variety in 1390-1391 production year, in Mazandaran province of Iran. Measurements were arranged by using a split-split plot fitted into randomized complete block design. Results indicated that increasing forward speed causes decreasing the broken grains. Increasing the input materials into thresher causes grain doesn't be in direct touch of thresher impacts and straw performs as a protection against thresher impacts. Highest breaking amount, around 0.30 percent, is related to Tarom variety and forward speed of 2 km/h. lowest amount of breaking is measured 0.21 and 0.17 percent, respectively, in Tarom and Fajr variety in rate of 4km/h. extra increasing and decreasing of grain moisture content causes increasing the paddy breakage. Lowest amount of breakage is measured 0.14 percent in rate of 4 km/h and moisture of 25 percent. Increasing the forward speed increases the amount of impurity in tank. Increase the inputs materials on cleaner section, decrease the cleaner section efficiency and increase impurity of straw and stubble in tank. Lowest impurity is measured 5.62 percent in forward speed of 2 km/h. Fajr variety because of more MOG, had more impurity, 5.41 percent, than Tarom impurity which was 8.31 percent.

کلمات کلیدی:

Cracked grains, Harvesting, Sieve, Paddy rice, Impurity

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