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Influence of seed rate and stages of harvesting on seed yield and quality of soybean cv.Dsb-21

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Seed development, maturity and harvest management are critical considerations for maintaining high seed yield and quality. The seed rate and timing of harvest is a very critical factor in seed production. It is necessary use to optimum seed rate and harvest seed at a time as close as possible to physiological maturity, when it reaches its maximum germination and vigor potential. With this background a field and laboratory experiment was conducted at the University of Agricultural Sciences, Dharwad with nine treatment combination involving three seed rate in soybean cv. Dsb-21 Viz., 62.50 kg/ha, 75.00 kg/ha and 87.50 kg/ha and three stages of harvesting Viz, initiation of yellowing of leaves, physiological maturity, and harvest maturity.

Among the different seed rate, application of 62.50 kg/ha seed recorded significantly higher number of branches per plant (7.38), pod length (3.6 cm), number of pods per plant(88.56), number of seeds per pod(3.13), seed yield (20.57 q/ha) as compared to other seed rate. Seeds harvested at physiological maturity recorded higher number of pods per plant (83.76), pod length (3.70 cm), number of seed per pod (3.09) and seed yield (19.22 q/ha) as against other stages of harvesting.

Seed quality did not differ significantly due to seed rate. However, numerically higher seed germination (90.7%), field emergence (82.61 %), seedling dry weight (0.93 mg), seedling vigor index- II (84.31) were observed in 75kg/ha seed rate. Among stages of harvesting, seeds harvested at physiological maturity, recorded higher seed germination (91.1 %), field emergence (82.91 %), seedling length (34.12 cm) and seedling vigor index-I (3106) as compared to other stages of harvesting. From the investigation it can be concluded that, application of 62.50 kg/ha seed and harvesting at physiological maturity stage of crop growth is better for obtaining higher seed yield and quality.