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THE EFFECT OF MOISTURE CONTENT ON THE STORAGE OF TREATED SEED OF SOYBEAN (Glycine max (L)Merril) VARIETIES

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ABSTRACT

A study was conducted to determine the effects of three different seed moisture content levels on the storage of treated soybean cultivars. Ranges of moisture levels utilized were for 'normal' (9.1% - 9.7%), 'increased' (15.6% - 18.8%) and 'decreased' (7.1% - 7.5%). Each cultivar moisture content level was treated with Thiram and then stored in polythene bags under ambient temperature in the laboratory for 5 months. Effect of cultivar, storage period and moisture content levels were observed on the physiological quality of the seeds. Thus, germination and vigor varied among cultivars and M-351 had the highest mean germination and vigor. Effect of moisture content levels differed significantly on the germination and vigour of the treated seeds. The normal moisture content level had the highest mean germination and mean vigour. Treated soybean seeds with increased moisture content level (15.6 –18.8%) had the lowest mean germination and mean vigor. Soybean physiological quality, irrespective of cultivars, progressively decreased with increasing storage periods. The study also revealed that for reasonable germination and vigour to be maintained storage period of treated soybean seeds should not exceed 6 WAT, irrespective of moisture contents level.

Keywords: Moisture contents, storage period, physiological quality, soybean seed.