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EFFECT OF PRIMING INTENSITY ON THE STORABILITY OF SUGAR BEET SEED

ABSTRACT

Priming/activation of sugar beet seeds gives many benefits to the grower, as a result of the faster more uniform emergence it provides. The faster emergence under the cool spring conditions maximises the amount of sunlight captured by the crop, and means the crop spends less time as small vulnerable plants. The improved uniformity of plant size makes crop management such as spray timings easier and it also optimises the harvesting performance. These ultimately lead to increased yields giving more income to the grower. As with most things you do not get something for nothing, and with priming there is optimal level between getting the fastest germination and emergence out of the seed and maintaining storability. Unprimed raw seed can be stored under cool dry conditions for many years. Primed seed can also be stored under cool dry conditions for several years, if the correct settings are used, however allowing the seed to go too far along the germination process during priming can dramatically reduce shelf life of the primed seed. Using accelerated storage conditions we have investigated different intensities of priming, to understand how aging affects germination speed and final germination.