

**GERMINATION OF ELEPHANT GRASS**  
**(PENNISETUM PURPUREUM SCHUM.)**

Elephant grass, *Pennisetum purpureum* Schum., was planted on Fredensborg clay to correlate germination with planting method and season. Plantings were made using old (over 1 year) and new (less than 6 months) canes during the wet season (November) and during the dry season (March). The split-block field test comprised four methods of planting for the main blocks, and old cane and young cane for the subblocks. The planting methods were: 1, Canes flat in furrow, covered 1–2 inches; 2, canes flat, covered 2–3 inches; 3, canes flat, covered 4–6 inches; and 4, 3-eye seed pieces planted nearly vertical. Canes planted flat were completely stripped whole stalks; 3-eye seed pieces were prepared as with sugarcane. There was ample soil moisture for the November planting and subsequent rainfall was adequate. There was less soil moisture for the March planting and subsequent rainfall was meager.

The rainy-season planting reached practically full germination within 1 month. The 3-eye seed pieces germinated better than the whole canes. Where whole canes were used, the shallower the planting, the better was the germination. There was little difference between young and old grass when whole canes were planted, but where the seed pieces were used the younger material was significantly better ( $P = 0.05$ ).

Germination continued for several months in the dry-season planting, especially of the 3-eye seed pieces. Young canes were superior to old ones in the dry-season planting of whole canes as well as of seed pieces. The deep-planted whole canes germinated better than the shallow-planted ones in the dry season, probably because of more drying near the surface. Three-eye seed pieces gave the best germination on Fredensborg clay soil regardless of soil moisture conditions.

The results of this experiment suggest that: 1, Young elephant grass should always be used as planting material; 2, in the wet season, good germination can be had from whole canes covered about 2 inches, or from 3-eye seed pieces; and 3, in the dry season (if not too dry), 3-eye seed pieces may give adequate germination.

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