B-100 Investigation on method of establishment for maize in lowland paddy fields

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An investigation was carried out to identify suitable establishment methods for maize to obtain good plant stand and reduce the planting to harvesting time. Turn around time of rice-rice cropping pattern in the dry and wet zones is approximately 2 months. Cultivation of maize for green cobs could be possible on the paddy land during this period. Excess moisture and days to harvest of green cobs are the barriers to adopt this practice.

3 varieties, Aruna (110 days), Bhadra.1 and Pacific 11 (120 days) and 3 establishment methods; direct seeding, seeding by sprouted seeds and transplanting were tested. Sprouted seeds were used to establish nursery and 5x5x5cm soil cubes used as nursery beds. 7 days old seedlings were transplanted. Planting beds were prepared after land was ploughed once. Field establishment of the experiment was done 2 days after harvesting of Maha rice crop.

Survival rate of the transplanted crop was 95% and it was 90% and 82% for crop raised from sprouted and direct seeds respectively. Days to harvest was 60 for transplanted Aruna and it was 70 for others. Crop raised from sprouted seeds can be harvested 2-3 days earlier than direct seeded crop. Transnsplanted crop recorded 10-12% yield increment over the sprouted seed crops. Direct seeded crop has reported the lowest yield.

Transplanted and seeding by sprouted seeds can reduce days to harvest and obtain good plant stand. Short duration variety can be grown during turn around time, hence, long duration varieties also can grow by adjusting turn around time of rice-rice cropping pattern.