

Two of the newly released varieties, Wang Kae and Kirkhouse Benga are resistant to *Striga*. Until this time, Songotra was the only released variety of cowpea in Ghana that was resistant to *Striga*.

PLANTING DEPTH

Planting should be done at a depth of 3-4 cm deep to ease emergence after germination. This is because cowpea starts emerging 4-5 days if planted in a well prepared field with good moisture. If the planting depth is not controlled, emergence could be delayed and in some cases the newly germinated seeds may not be able to emerge.

Planting depth should also not be too shallow to avoid being exposed by rain splashes or erosion. This will predispose the seeds to birds and rodent attack. Scaring is also important after planting if the field is isolated or planted earlier than other farmers.

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SAVANNA AGRICULTURAL RESEARCH INSTITUTE



**Cowpea:
Field Establishment**

Kirkhouse Trust Supporting research and education in the biological sciences

PLANTING

Planting should be done when there is good moisture in the soil, (not in wet soil) preferably a day after a good rain after land preparation. Although the field could be prepared and planted a day after a good rain, such fields lose water faster than compared to already prepared fields. Do not plant on dry land in anticipation that it may rain days later. This could lead to poor germination and poor crop establishment. Planting could be done with planting hoes as practiced in Upper East region, dibbling as in Northern Region or with cutlass.

OPTIMUM PLANT POPULATION

Maintaining optimum plant population is one of the positive good practices towards attaining good yield per unit area. Fields should be planted using the recommended spacing of 60 cm x 20 cm or 75 cm x 20 cm in areas where land is prepared by ridging at a fixed inter row spacing of 75cm (Upper East Region).

Three seeds should be planted per stand and should be thinned to two plants per stand at two weeks after planting.

Usually farmers have difficulties removing established plants to maintain recommended plants per stand. The field officers should therefore encourage them to thin to prevent overcrowding with its associated problems.

Refilling should be done between 7-10 days after planting if poor germination is observed. Early refilling will ensure uniformity in plant height, flowering, pod formation and development.

WEED CONTROL

Weed control is highly recommended for good cowpea production. The first weeding should therefore be done between 10-14 days after planting. This will prevent competition between the young seedling with less developed rooting system and the well-established weeds which usually outnumber the seedlings.

Early weed control can be achieved by spraying with pre-emergence weedicide suitable for legumes such as Alligator or Stomp immediately or a day after planting. Where weeds are found emerging at the time of planting, systemic post-emergence weedicide could also be sprayed after planting. When this is done, the first and proba-

bly the only weeding could be done a month or more after planting. In areas where labour is very expensive, the judicious and safe use of weedicides have been found to reduce cost of production drastically.

When manual weeding is done, the second weed control should be done by three weeks after the first weeding in order to maintain weed free field. If it becomes necessary to control weeds at the time of flowering, then hand pulling is recommended in order to avoid disturbing the plants which could lead to dropping of the flowers.

An important weed of cowpea is Witch weed (*Striga gesnerioides*). *Striga* is a host-specific parasitic weed that infest the roots of cowpea and feed directly from the infested plant. It causes stunted growth, yellowing of leaves, delayed flowering and poor pod and seed formation. The best method of controlling *Striga* which is compatible with other pest control methods and environmentally friendly is the use of resistant varieties.