Kenya Agricultural & Livestock Research Organization

Machakos 66 (M66) (purple pods) (Cowpeas)

Climatic requirements
- M66 is a bushy semi-spreading plant with an indeterminate growth habit
- It is a dual-purpose variety grown for both leaves and grain
- The leaves and midribs are dark green
- It flowers within 55-60 days
- Flowers are purple with a white corolla
- Matures within 80-90 days
- The pods are green when young, turn bright red during grain filling and brown purple when dry
- It has smooth creamy brown seeds having a small eye
- The yields range from 800-1700 kg/ha or 320-680 kg/acre
- M66 is tolerant to yellow mottle virus and scab moderately tolerant to septoria leaf spot and powdery mildew
- It has some field tolerance to aphids and thrips.
- M66 may mutate to various forms during the growing period

Recommended zones
Machakos 66 is recommended for medium and higher altitudes of between 1200-1500 above sea level in agro-ecological zone III and IV.

Management/Breeding Practices

**strong>Land preparation**
The field should be well prepared without big soil clods and have a fine filth. Hand, oxen plough, tractor can be used for ploughing.

**Time of planting:** Early planting is recommended but not before 30mm of rainfall is received. Spatial planting is also recommended.

**Seed rate:** 20-25kg/ha (8-10kg per acre)

**Number of plant/hill:** Sow 3-4 seeds/hill and thin 2 weeks after emergence to one seedling per hole.

**Depth of planting:** Seed should be placed between 4-5cm deep and covered properly.

**Spacing:** Machakos 66, Katumani 80 and KVU 27-1: The distance between rows is 60cm and between plants 20cm. KVU 419: The distance between rows is 50cm and between plants 20cm.

**Intercrop:** Maize: 150cm X 30 cm, 2 rows, 120cm X 30cm, 1 row Sorghum: 150cm X 15cm, 2 rows

**Fertilizer**
Cowpeas require nitrogen and phosphate fertilizer application. However, where the soils are highly eroded and very deficient in these nutrients, a basal dose of 10-15kg/ha of nitrogen and 20-25kg/ha of single or triple super phosphate fertilizers may be broadcasted. Cowpeas not pod if a lot of nitrogen is applied and remains very leafy.

**Weeding**
The first weeding should be done two weeks after emergence and the second one must be done before flowering.

**Crop Protection**

**Insect pests:**
Before flowering aphids, thrips, leafhoppers
After flowering - aphids, pod borers, pod sucking bug, apion beetle
During storage - Bruchids.

**Chemical control**
Aphids: Thiodan, Duduthrin, Karate or Sherpa plus
Thrips: Sherpa plus, Karate, and Duduthrin
Leafhoppers: Thiodan
Pod borers: Thiodan, Sherpa plus, Decis, Thiodan
Pod sucking bugs: Dimethoate, Sherpa plus, and Karate
Apion beetle: Super Actellic

**Harvesting and storage**
Time of harvesting - harvest when all the pods have turned brown and are dropping. Weevils are major storage pests. To store, dust the grain with super actellic (50g per bag) or with neem tree leaves or treat with wood-ash (4-6 kg of ash per bag). The grains should be well dried before being stored.