Mbaazi-1 (Pigeonpea)

Climatic requirements
- A determinate variety that grows 80-120cm high depending on season and altitude
- Shorter when grown at higher altitudes and taller at lower altitudes
- The plant is compact and is normally grown as a sole crop
- A short duration variety with a semi spreading growth habit and an indeterminate flowering pattern
- Flowers in 55-70 days
- Unopened flower is red in colour while the open flower is yellow
- The pods are green with purple streaks
- Matures in 105-120 days producing greyish grain (short duration)
- Has a potential yields of 1000kg/ha or 400 kg/acre in one season and 2000kg/ha or 800 kg/acre in two seasons

Recommended zones
Pigeonpea varieties are sensitive to differences in temperature. With late maturing types, high temperatures (greater than 20°C) delay maturity whereas in the early types higher temperatures (20-30°C) hasten maturity.

Mbaazi-1 can be grown in the same range of altitude and temperature as Kat/60/8 but is better suited to the more humid coastal zone. Mbaazi-1 is better adapted to medium and higher altitude (over 900m above sea level). If grown in altitude lower than 900m above sea level, they produce excessive growth and may not flower.

Management/Breeding Practices

Land preparation: Requires a fine tilth like other grain legumes. Avoid soils with huge soil clods
Planting: Practice spatial planting, that is plant half the crop and plant the rest at rain onset
Seed rate: 20-25kg/ha (8-10kg/acre)
Method of planting: Plant in furrow or holes but place at least 5 seeds per hole
Depth of planting: Place at a depth of 4-5cm and cover properly if there is little moisture
Thinning: Thin to 2 seedlings per hole two weeks after emergence Spacing:

i). Sole cropping
Mbaazi-1:
Plant at 50cm between rows and 10cm between plants if using plough, skip one furrow.

ii). Intercropping
Mbaazi-1 should always be planted as a pure stand.

Fertilizer
Fertilizer is not recommended. However, in extremely poor soils, a basal application of one bag of NPK fertilizer (20:20:0) could be applied.

Weeding
The slow initial growth of pigeonpea seedlings makes the crop vulnerable to weed competition in the first six weeks of growth. During this period, keep the crop free from weeds. For short duration pigeonpea varieties such as Mbaazi-1, weed twice, for medium and late types weed three times in the first season. The first weeding of all varieties must be done within the first 2-3 weeks whereas the second weeding should be done two weeks after the first one. Subsequent weeding will depend on the growth of weeds and amount of rainfall.

Crop Protection

Insect pests and their control methods
Pod sucking bugs, pod borers and thrips are major pigeon pea pests. Mbaazi-1 and KAT 60/8 normally flower coinciding with peak periods of the insect pests infestations. Insect pests are best controlled in the following stages:
i) Before flowering - Thrips and aphids
ii) After flowering - Pod fly, pod borers, pod suckings bugs
iii) Storage - Bruchids

General recommendation - spray once before flowering and twice after flowering. The following is recommended at various phases of plant growth:

i). Before flowering to control thrips and aphids, spray Sherpa plus, Karate or Thiodan when flowers are forming.
ii). During and after flowering - the common insects include thrips, pod fly, pod borers and pod sucking bug. Spray with Sherpa plus, thiodan, Karate, Decis or Thiodan.
iii). Storage - During storage, control bruchids through use of super acetelic (50g/90kg bag), ash or neem leaves (4-5 kg/ton)

Diseases and their control methods
Fusarium wilt - Rogue and destroy infected plants - Crop rotation - successive pigeon pea sole crops should not be planted in the same field after 3 years. In the meantime rotate with cereal crops.

Harvesting
Green mature pods may be harvested for grain food. Harvest dry grains when most of the pods are dry and have
turned brown.

**Storage:** Dry grain in the sun before sorting and dust with super actellic at 50g/90kg bag.

**Use**
Pigeonpea can be consumed in form of whole grain or split pea (dehulled).
There is market within and export for green pods, whole dry grain and split pea (dehulled).