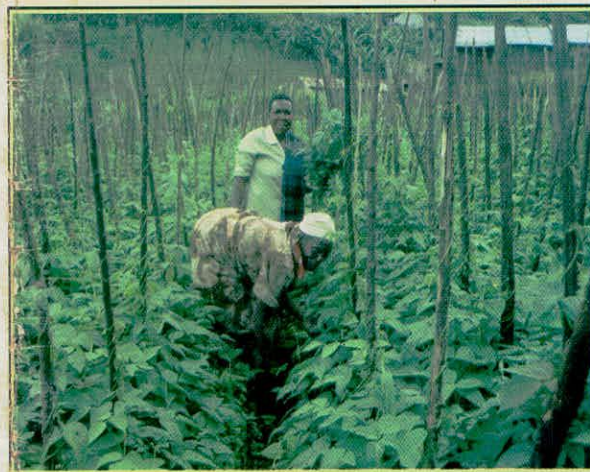
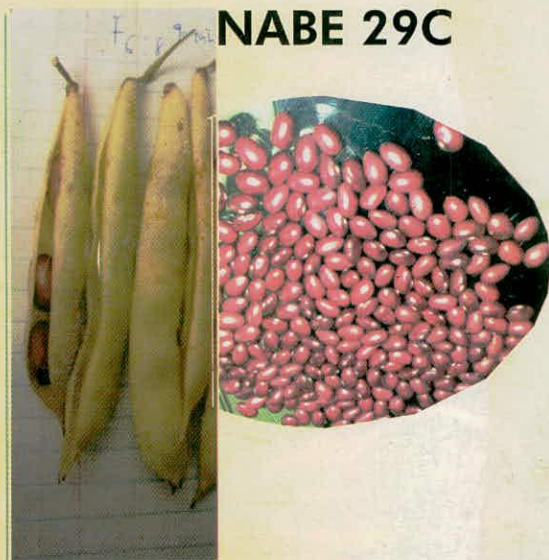


Rose: T Copy
**GROWING IMPROVED
 CLIMBING BEAN
 VARIETIES
 FOR
 HIGHER PRODUCTIVITY**



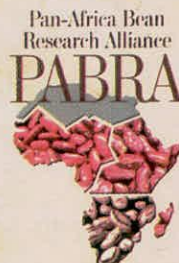
Maturity: 78-120 Days
Yields: 2200-3500Kg/Ha
Released: 2012
Average pods per plant: 33
Size: Medium size
Color: Red
Other attributes: Highly marketable, swells when cooked, Very tasty. Suitable for low, medium and high altitude areas.

**NABE 12C, NABE 26C
 and
 NABE 29C**

**For more Information,
 please contact:**

Uganda National Beans Research and
 Development Programme,
 National Crops Resources research Institute
 (NaCRRI)-Namulonge

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Alliance
 for a Green Revolution
 in Africa

DECEMBER 2013

How to grow Climbing beans

Seed bed preparation.

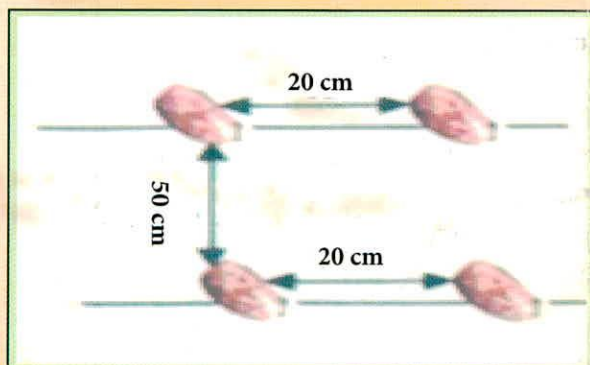
Prepare a fine seedbed to ensure uniform and proper growth. This also reduces the number of weeding's. In case of couch grass and other notorious weeds, spray with herbicide once; three weeks before ploughing.

Planting.

Climbing beans are planted earlier than bush beans, especially at the onset of rains. Plant in rows to ease field operations such as weeding, staking and harvesting.

Spacing

Depending on soil fertility, use a spacing at 50cm between rows and 20cm between plants or 60 cm between rows and 20 cm between plants. Plant one seed per hole.



Seed rate

You need 40—50 Kg of quality bean seed to plant 1 hectare at 50cm by 10cm spacing and 35 –40kg for the spacing of 60cm by 20cm.

Weeding

Keep your bean field weed free till harvesting. Avoid weeding during flowering as this may lead to flower drop and reduced yields.

Staking

Stake beans after weeding; 2-3 weeks after planting. Staked beans grow well and give higher yields. To stake, place one strong stake, about 2 meters long, between two plants or in the center of four plants firmly placed in the ground.

Using wood based options

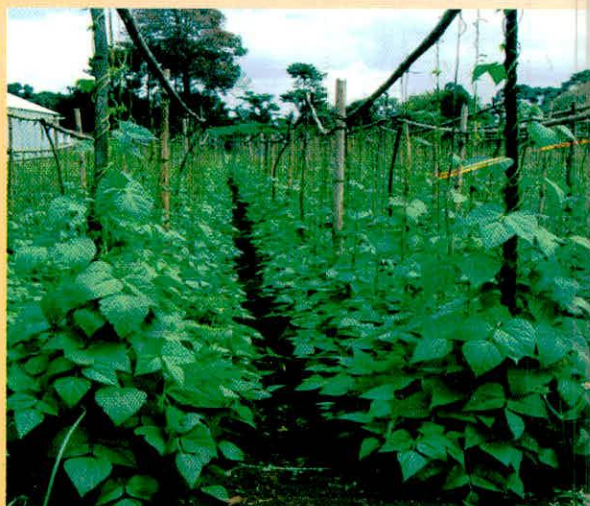


Alternative staking materials like elephant grass reeds, Banana fibres, sisal strings and papyrus placed in different formations can also be used. Also use calliandra or ssesbania. These shrubs can be planted along hedges and can also be used as animal feed.

One can vary the types and positioning of stakes as long as they achieve optimal staking and plants are adequately supported for good yields.

Choose the stakes to use according to availability, durability, strength and to minimize the costs that are involved in staking.

Twisted Banana fibers



Sisal or Gauze Wire



Using papyrus options



Fertilizer application.

In case of poor soils apply fertilizer. Use well decomposed organic manures like farm yard, crop residues or green manure depending on availability. Also inorganic fertilizers like NPK (100kg/ha), Urea (50kg/Ha) or DAP (100 kg/Ha) can be used depending on initial soil fertility status.

Bird damage management

Climbing beans are generally affected by birds, which damage the young forming pods.

This results into reduced yields. Scaring away birds is thus very important. Massive planting minimizes the effects of bird damage.

Disease management

The new released varieties are tolerant to some of the major bean diseases such as bean root rot. To, however, minimize the effects of diseases; 1. plant clean/disease free seed, 2. apply organic or inorganic soli amendments to improve soil fertility, 3. Practice crop rotation, 4. Remove diseased plants and 5. Spray aphids which transmit viral diseases.

Field insect pest management

The most important pests are bean stem maggots (Bean fly), aphids and flower thrips. To minimize the losses due to bean fly; plant early at the on set of rains, earth up at first weeding, improve soil fertility or seed dress with endosulfan (10mls/10kg) the day before planting. To control aphids and thrips, use any genuine SYSTEMIC pesticide as per manufacturers recommendations.

Harvesting, threshing, sorting, drying and storage

Harvest early to avoid weevil infestation by pulling the whole plant from the ground and removing stakes away.

Thresh by beating with a stick when pods are dry. Winnow and then sort by hands to remove disease-stained and off type seeds. Dry completely and store in a dry place in clean bags or containers for later use.

Ensure that the stakes are stored well so that they can be used several times before they are discarded.

Storage pest management

The commonest storage pest is the bean weevil. To reduce losses practice the following; timely harvesting, dry the seed properly, sort out damaged grains before storage, dust the seed with chemicals (Actellic powder and Malathion), and place the seed in the sun for 6 hours once every week for five weeks. Also use botanicals (ground tobacco leaf powder, Mexican marigold, tephrosia, and neem tree leaves).

IMPROVED CLIMBING BEAN VARIETIES



NABE 12C



Maturity: 89-110 Days

Yield: 2000-3500Kg/Ha

Released: 2003

Average pods per plant: 33

Size: Medium size

Color: Cream with purple speckles

Other attributes: Highly marketable, Swells when cooked, very tasty, cooked grain do not split and its very good for canning .



NABE 26C



Maturity: 77-113 Days

Yield: 2500- 3500Kg/Ha

Released: 2012

Average pods per plant: 44

Size: Medium size

Color: Red mottles

Other attributes: Highly marketable, Swells when cooked, very tasty. Suitable for low, medium and high altitude areas.

Why grow climbing beans?

1. They are high yielders compared to Bush beans under good management and if grown on the same area.
2. They are highly marketable both in dry and fresh form and have large attractive grain and pods
3. They are tasty and swell when cooked. NABE 12C is particularly good as a canning bean.

Where do climbers grow best

Climbing beans are traditionally grown in high altitude (Highlands) areas such as southwestern and eastern highlands in Uganda. They are however becoming popular in low altitude areas too.

Where to find seed

1. Obtain breeder/foundation seed of NABE 12C, NABE 26C, NABE 29C and other climbing bean varieties from National Crops Resources Research Institute (NaCRRI)-Namulonge.
2. In Zonal Agricultural Research development Centers like Kachwekano, Mbarara and Bulindi.
3. Community based seed producers/Farmer groups that supply Quality declared seed in Kabale and Kisoro districts.
4. Seed stockist in Kabale and Kisoro districts.