

Bird damage management

Climbing beans are generally affected by birds, which damage the young forming pods. This results into reduced yield. Therefore scaring away the birds is very important. Massive planting in area also reduces the effects of birds.

Harvesting, threshing, sorting, drying and storage

Harvest when the crop is completely dry by pulling whole plants from the ground and removing away from the stakes. Thresh by beating with a stick when the pods are crisp and 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.

Storage insect pest management

In storage, NABE 12C may be attacked by bruchids (weevils). To reduce losses practice the following: harvest timely, sort out damaged grains before storage, dust the seed with chemicals (Actellic and Malathion), dry the seed properly, place the seed under the sun for 6 hours once every week for 5 weeks, sieve once every week for 5 weeks to remove the eggs before storage, use botanicals (ground tobacco leaf powder, mexican marigold, tephrosia), solar heat disinfection (especially for beans for consumption, not seed) and good storage hygiene. Some farmers also use ash, anthill soil and ripe banana juice smears.

Where to find seed

Obtain breeder seed of NABE 12C from Namulonge Agricultural and Animal Production Research Institute (NAARI), 27 km from Kampala, along Gayaza - Zirobwe Road. Farmers and other producers are also encouraged to source seed from the Zonal Agricultural Research Development centers (ZARDCs) such as Kachwekano, Mbarara and Bulindi. And from farmer groups in Kabale, Sironko, Bushenyi, Masindi, Apac, Mubende and Kisoro districts who are producing seed.



NABE 12C, at maturity in Kabale district, Kitumba Sub County

For more information, please contact:

Uganda National Beans Research and Development Programme
Namulonge Agricultural and Animal Production Research Institute (NAARI)
27 Km from Kampala, Gayaza-Zirobwe Road
P.O.Box 7084, Kampala, Uganda
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THE REPUBLIC OF UGANDA
Ministry of Agriculture,
Animal Industries and
Fisheries (MAAIF)



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An information guide for farmers, extension agents and seed producers

GROW NABE 12C FOR HIGHER PRODUCTIVITY,

An improved climbing bean variety



Released in Uganda in 2003



National Agricultural
Research Organisation

Introduction

In Uganda, climbing beans were traditionally grown in the high altitude areas such as Kabale and Kisoro (south western Uganda) and in Sironko (eastern Uganda). Today they are also becoming popular in the low altitude areas. This is because of the several advantages they possess over bush beans including a higher yield potential of about 2-3 times, short cooking time and suitability to areas with limited land or high population which also includes the urban areas. NABE 12C was released in 2003 by the Uganda National Beans Research and Development Programme based at Namulonge Agricultural and Animal production Research Institute (NAARI), in collaboration with the International Center for Tropical Agriculture (CIAT) and the East and Central Africa Bean Research Network (ECABREN). It is a mid altitude climbing bean.

What is good about NABE 12C ?

- Has large seed
- An attractive seed colour
- High yield potential of between 2,000 and 3,000 kg/ha under good management
- Matures between 89 and 110 days depending on environment
- Tasty and swells on cooking
- Has large attractive fresh pods
- Cooks very fast
- More heat tolerant, as such can be grown well in low altitude areas
- Has marketable seed
- Has reduced bird damage of young forming pods
- Has tender leaves



Freshly harvested seeds of NABE 12C

Recommended zones for production of NABE 12C

NABE 12C can be grown well all over the country: both in the low and high altitude areas.

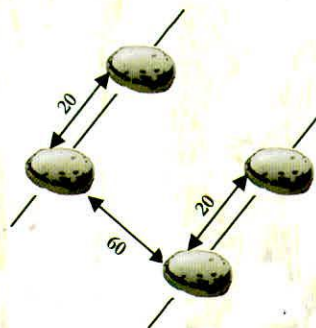
How to grow NABE 12C

Seed bed preparation

Prepare a fine seedbed, to ensure uniform and proper growth right from germination. This also reduces on the number of weeding times. In case of couch grass infested fields, spray with Round up once, three weeks before ploughing.

Planting

Like other climbing beans, plant NABE 12C earlier than bush beans, especially at the onset of rains. This is because climbing beans generally need a lot of water. Plant in rows to ease field operations such as weeding, staking and harvesting.



Spacing

Space at 60cm or 50cm between rows and 20cm between plants. Plant one seed per hole.

Seed rate

To grow 1 ha of NABE 12C, you need 40 – 50 kg of seed.

Fertiliser application

Generally climbing beans require fertile soils. In case of poor soils, apply fertilisers. Use well decomposed organic manures like farmyard, crop residues and green manure depending on availability. Inorganic fertilisers such as NPK (2 bags/ha), Urea (25 kg/ha) or DAP (2 bags/ha) can be used depending on initial soil fertility.

Weeding

Weed 2–3 times after planting the crop. Can also weed once depending on initial land preparation.

Staking

Stake the beans after weeding, at about 2–3 weeks after planting. Staking allows the beans to grow well and give high yields. To stake the beans, place one strong stake between two plants or in the center of four plants, especially if the stakes are scarce.

NABE 12 C is a heavy podder, so use strong stakes of about 2 metres. Place them firmly into the ground to avoid toppling in case of winds. For staking material, use tree branches such as eucalyptus and Calliandra. You can also use mature elephant grass reeds, banana fibers and sisal strings.

Disease management

NABE 12C is tolerant to angular leaf spot, anthracnose, common bacterial blight, rust, bean common mosaic and bean common mosaic necrotic viruses. However, it may be attacked by bean root rot. So to minimize the effect of diseases: 1) plant clean or disease free seeds, 2) apply organic and inorganic soil amendments to improve soil fertility, 3) practice crop rotation, 4) rogue and 5) spray aphids which transmit viral diseases.

Field insect pest management

The field insect pests commonly attacking NABE 12C are bean stem maggot (bean fly) and aphids. To minimise losses due to bean fly: plant early at onset of rains, earth up at first weeding, improve soil fertility and seed dress with Endosulfan at a rate of 10ml per 10kg of seed the day before planting. To control aphids, use Dimethoate, Ambush, or Sumithion as per the manufacturer's recommendations.