

CABBAGE

DAYS

# Novacuiture Technical journal on vegetable seeds

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Cabbage ARISTO F1

## **SOON IN YOUR STORES!**

2025

## CABBAGE ARISTO F1 !

Early, firm cabbage of good size, showing good behavior in case of diamondback moth.

Perfectly suited to the SANTA F1 niche, for hot dry seasons.

Blandine AMAGAT Product Manager Roots and Cabbage, TECHNISEM France

## WHAT ARE OKRA'S NUTRIENT REQUIREMENTS?

Like all plants, okra has specific nutritional requirements for optimal development. So it's important to provide it with the right nutrients, which are :

- **1. Nitrogen (N)** is essential for vegetative growth, leaf formation and photosynthesis. However, too much nitrogen can encourage excessive leaf growth to the detriment of fruit production.
- **2. Phosphorus (P)** is crucial for root development, flowering and fruiting. Phosphorus also boosts plant resistance to disease.
- **3. Potassium (K)** helps regulate plant growth, photosynthesis and resistance to disease and extreme weather conditions. Okra has high potassium requirements, particularly during the fruiting period.
- **4. Calcium (Ca)** is essential for cell development and cell wall strength. Calcium deficiency can lead to problems such as fruit blossom end rot.
- **5. Magnesium (Mg)** is a central component of chlorophyll and is necessary for photosynthesis. Magnesium deficiency can lead to yellowing between the leaf veins.

- 6. Sulfur (S) is important for protein synthesis and the formation of certain vitamins. Sulfur deficiency can inhibit growth and affect leaf and fruit quality.
- **7. Boron (B)** is crucial for pollination, fruit formation and root growth.
- **8.Iron (Fe)** is essential for photosynthesis and plant metabolism. Deficiency can lead to yellowing of leaves (chlorosis).
- 9. Other elements: copper (Cu) and molybdenum (Mo) are required in very small quantities for enzymatic and metabolic functions. Zinc (Zn) and manganese (Mn) are also important for okra.

#### Conclusion

Good nutrient management, including balanced fertilization, is essential for optimal growth and abundant harvesting. Well-drained soil rich in organic matter and adequate irrigation are also important factors in growing okra.

> Philippe MANGA Bissap/Okra/ Lettuce/LFA Breeder, STATION TROPICASEM, Senegal



Plants with deficiencies

# FOLLOW-UP AND MAINTENANCE OF PLANTS AFTER TRANSPLANTING.

#### Transplanting

Transplanting is a crucial stage in the plant's growth process, allowing young plants to develop fully before being transferred to their final location. This often overlooked practice can make all the difference between abundant harvests and stunted plants.

#### -> What to do before transplanting.

Before transplanting, make sure the plants are ready and have developed a pair of true leaves (4-8 leaves for vegetable plants) and well-formed roots. It is advisable to water the plants lightly the day before transplanting to make transplanting easier. Ideally, transplanting should take place on a cloudy day or at the end of the day to minimise stress on the plants.

#### Monitoring and maintenance

These are important elements in obtaining quality production with good yields. The main activities to be carried out for good results.

#### Watering and humidity control

1. After transplanting, watering should be carried out immediately, taking into account the water retention capacity of the soil and the water requirements of the plants, to help the young plants root quickly and adapt.

- 2. Regular watering as required to encourage healthy growth.
- Controlling temperature, light and ventilation

Make sure that the temperature is adapted to the needs of the plants, i.e. between 18 and 24°C, that they receive sufficient light (4 to 6 hours of light/day) and fresh air.

Regular hoeing

This helps to keep plants healthy, control weeds and facilitate the absorption of water and nutrients.

#### Protection against disease and pests

Regular monitoring after transplanting is imperative to detect any signs of stress, disease (bacteria, fungi, viruses) and pest attacks (aphids, whiteflies, spiders, etc.) because at this stage, the plants are very vulnerable.

Use of biological or chemical control methods is necessary.

#### Fertilisation

Apply fertilizer (organic or mineral) to maintain soil fertility. Note that the fertiliser must be balanced to promote rapid plant growth.

Nathan KWAYEP, Regional Developer AGRIVISION - CAMEROON, Cameroon



Transplanting plants

## What diversity do we find in Capsicum annuum?

The study of the diversity of agro-morphological traits is important for varietal improvement. *Capsicum annuum* is one of the world's five most widely cultivated domesticated capsicum species (*frutescent, annuum, baccatum, chinense* and *pubescens*), with a wide range of edible and non-edible *annuum* species considered ornamental (D).

Edible annuum are eaten fresh or as processed products (canned chillies, dried chillies, spices, etc.) of high nutritional value.

The best known are the bell pepper (A), (C) chili (B) and jalapeño types. inflorescence the lts uniparous is only known phenotype common to all Capsicum annuum varieties. Depending on the type, different morphologies are found in plant habit, leaf shape habit, and even fruit (E). fruit shape. taste. fruit color. etc.



- Plant habit: annuum generally have an upright or intermediate habit with indeterminate growth.
- Leaf shape: leaves can be oval, lanceolate or elliptical. The oval shape is most common in bell pepper types.
- Fruit habit: drooping, upright or horizontal.
- Fruit shape: square (blocky square, halflong square, conical square and trapezoid), rectangular and triangular (short, narrow or elongated). The triangular shape is more representative of the chili and jalapeño types.
- Color: often green before ripening, yellowishwhite and violet are known; at physiological maturity, fruit can be red, yellow, brown, orange, white or even Ever green, with almost no color change at ripening (C).
- Taste: genotypes belonging to the Capsicum annuum species vary in taste from mild to pungent, the latter controlled by capsaicin. Generally speaking, the sweet taste is found more in the bell pepper types, and the hot taste in the chili and jalapeno types.

#### Marie Etienne DIOUF Junior sweet pepper Breeder STATION TROPICASEM , Senegal



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### Testimony

M. CORNEILLE producer in ZEBRA, Daloa, Ivory Coast

I'm a vegetable grower in central western Côte d'Ivoire. I've been familiar with Technisem seeds since 2014.

I grow varieties such as curly parsley, F1 cabbage TROPICA CROSS, okra KIRIKOU, tomato COBRA 26, etc...Among the seed companies, I chose Technisem varieties because of their good germination qualities, their high tolerance to diseases and their good productivity.

I make my purchases either from Mr Gafar, a Semivoire reseller based in Daloa, or directly from the Semivoire store in Daloa through the sales agents. Thanks to the developer Mr. Fofana, in charge of the zone, I have been able to experiment with the following varieties:

TINGAL tomato, TIKAL hot pepper, THAÏLANDE+ pepper, SUPER AYA zucchini, MATADOR zucchini, ALIÉNOR zucchini, NANGA cucumber, TANAGA cucumber, DENALI cucumber, etc. And I have always been satisfied with the results of these new varieties in terms of performance and quality. I always encourage other growers to pay for Technisem seeds, which always give good results.



Valy FOFANA, Central and Western Developer SEMIVOIRE Ivory Coast

### Leaf beetles and ladybugs

(Henosepilachna spp. , Aulocophora spp. Asbecesta spp. )

These colepteran insects bite leaves and roots from the plant. Ladybugs have the ability to leave intact one of the two leaf sides creating a window effect because one part of the leaf is translucid.



#### Symptoms and damage

Leaves are pierced which can lead to the death of young plants.

Roots may also be attacked by young insects at the base of the collar and therefore induce the entry of soil fungi.



#### **Damage prevention**

- Use an insect-proof net in the early stages of the plant.
- If possible, manually remove the insects on the leaves at the base.
- Apply an insecticide treatment on seedlings if the attack is important in early culture.
- Bury deeply crop residues.
- Bring wood ash at the bottom of seedlings.

Information from the practical guide created by Technisem

## **CROP GUIDE BY ZONE**

## TECHNISEM

#### **Recommended varieties for the next two months according to geographical areas\***

Below are several varieties offered by TECHNISEM for sowing in three defined areas. These tips are valid for the following months: april, may, june.

The team of Regional Developers based in Africa and product managers TECHNISEM, France



\* Geographical areas: Sudano-Sahelian area (Cabo Verde, Senegal, Mauritania, Mali, Northern Côte d'Ivoire, Northern Ghana, Northern Togo, Northern Benin, Burkina Faso, Niger, Northern Nigeria, Sudan), Coastal West Africa Area (Southern Côte d'Ivoire, Southern Ghana, Southern Benin, Togo, Guinea Conakry, Liberia, Sierra Leone, Guinea Bissau), Central Africa area (Congo, Cameroon, Southern Nigeria, Gabon, DRC, Rwanda)»

