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NOVALLIANCE
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Novaculture

Technical journal on vegetable seeds

N°43

TECHNISEM

SOON IN YOUR STORES!

DE GAMA SWEET PEPPER !

Sweet pepper DE GAMA

With its tolerance to bacterial wilt (Rs), bacterial gall (Xcv) and resistance to tomato spotted wilt virus (TSWV), DE GAMA is perfectly suited to wintering.

Highly productive, its fruits have a very good size, a beautiful color ranging from green to red, and a firm skin for good post-harvest conservation.

Suzon TRAINSON
Solanaceae Product Manager,
TECHNISEM France

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WHAT ARE THE DIFFERENT TYPES OF SQUASHES AND WHAT ARE THEIR CHARACTERISTICS?

Squashes, *Cucurbita pepo* L., is a plant native to Central America. It belongs to the Cucurbitaceae family and is in the same genus as squash and giraumon. An annual plant with a short, unbranched stem and a more or less creeping habit, it develops large, long-stalked leaves. Optimum temperatures for growth and fruiting are between 16 and 24°C.

There are several types of squashes, depending on their color, shape, production area and growth habit. Depending on their color, the different types of zucchini have the following distinctive features:

- Light-green types: These are squashes with a very thin skin that doesn't need peeling, and soft, slightly sweet flesh. They are very productive and early, generally adapting well to sudden rises in temperature.

- Dark green types: These are very large, vigorous plants with fruit that is generally elongated cylindrical in shape, or round for certain firm-fleshed varieties. These types adapt very well to humid areas. Green squashes produce large quantities of fruit and are ready for harvesting in around forty days after planting.

- Caserta types: These are very early squashes with a very strong floral attachment. They are prized for their light-green cylindrical fruits, subtly streaked with darker green. Suitable for both rainy and dry seasons.

- Very dark green or black types: these squashes are generally non-runners, very early, very productive and fast-growing. Their fruits are very dark green and elongated. They generally have a mild, sweet flavor, and can be eaten raw or cooked. Black squashes are rich in nutrients and antioxidants, making them a very healthy food. They contain vitamin C, potassium and magnesium, making them excellent for the immune and cardiovascular systems.

- Yellow types: These are squashes that form a low but voluminous bush, sometimes with long stems that run along the ground in the case of running varieties. The stems are thick, with small, hard, prickly hairs. The foliage is imposing, with large triangular, lobed leaves. Yellow squashes generally produce elongated or round golden-yellow or orange fruits when ripe. These are rather productive early varieties, with cream-colored flesh. Their skin is tougher than that of other types.

Salifou TIEGNA Station Selection
Coordinator NANKOGENETIC,
Burkina Faso

SUPER AYA

ALIENOR

Yellow types

KOUBERA

TENOR

SEED TREATMENT

When you buy Technisem seeds, most of them are blue. But do you really know why you should buy blue seeds?

The blue on the seeds is the result of a film coating applied to their surface. These treatments, of natural origin, are the result of in-depth in-house research. Seed coating enhances the agronomic performance of seeds by providing tolerance to certain stresses, thus ensuring or even improving yields at harvest. This article sheds light on the benefits of seed coating offered by seed technologies, its advantages and the best practices to adopt in order to preserve the full potential of these innovative products.

What is seed technologies?

Seed technologies covers all technologies applied to seeds to optimize their genetic potential and ensure optimum plant development. At Technisem, seed technologies covers all technologies applied to seeds to optimize their genetic potential and ensure optimum plant development. relies on two units. An R&D unit, which carries out numerous projects to offer Technisem customers effective treatments that are compatible with seed genetics. Then there's the industrial unit, which treats all commercial batches with treatments developed through in-house research.

Collaboration between these different teams is essential to guarantee the innovation and performance of the products developed.

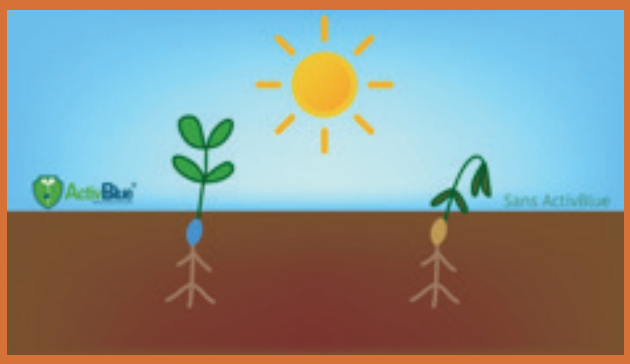
Behind the blue is, in most cases, a naturally derived phytosanitary product called a biostimulant. Biostimulants are innovative solutions that use the benefits of nature to help plants cope better with environmental stresses.

At Technisem, we have 2 biostimulant products. P&B Blue stimulates root growth and accelerates germination of vegetable seeds. These two properties are particularly interesting for cultivation in nutrient-poor soil.

The second product is Activ'blue, a natural product that confers tolerance against water stress. This treatment also acts as a "vaccine" for the plant, stimulating its natural defenses to increase its resilience to a second, later wave of drought.

It is therefore essential not to soak seeds before sowing, in order to preserve the integrity of the biostimulant. This will enable the biostimulant to remain in close contact with the young roots and support their development.

If you would like to find out more about seed technologies covers all technologies applied to seeds to optimize their genetic potential and ensure optimum plant development. , I invite you to consult our explanatory materials in the store, on the Novalliance Group website or on Seedlab's linkedin.



ActivBlue®
Sublime le potentiel des semences

P&B Blue®
Accélère le potentiel des semences

Erwan CHASLES R&D Project Manager
Techno-semences
SEEDLAB, France

What is the difference between fertilizers and manure?

It is somewhat complicated to answer the question of whether there is a difference between fertilizer and manure, since in essence they are almost similar.

A manure is a product, substance, or blend of substances—of natural or synthetic origin—used in agriculture to amend and nourish the soil.

Fertilizers, on the other hand, are organic or mineral substances, whether synthetic or natural, often applied in mixtures to supply plants with supplemental nutrients that enhance their growth and improve both the yield and quality of the crops.

The difference lies in the primary function of each product: the manure is applied to nourish the soil so that the plant can properly assimilate the fertilizers provided during maintenance, while the fertilizer is intended solely to feed the plant. In simple terms, manure nourishes both the plant and the soil, whereas fertilizer targets the plant exclusively.

Manures offer the dual advantage of feeding the plant and maintaining a living, vibrant soil. At the research stations of the Novalliance group, for instance, we are applying green manures (e.g., mucuna, forage cowpea) or organic amendments (e.g., dung, compost). In contrast, the key benefit of fertilizers is their ability to deliver precise nutrients tailored to the crop's needs, thereby enabling adherence to the Law of the Minimum in plant nutrition (Liebig's Law of the Minimum). This principle stipulates that the genetic yield potential of a crop is limited by the primary nutrient that is not available in sufficient quantity at the critical time (the law of diminishing returns). Typically, the fertilizer requirements are determined through soil analyses.

However, manure alone cannot supply all the fertilizing units necessary for optimal crop production. Overuse of fertilizers leads to the pollution of groundwater and aquifers, and it increases the ratio of carbohydrates to vitamins—resulting in lower fruit quality. Moreover, bacteria convert nitrogenous compounds into nitrous oxide, a greenhouse gas approximately 300 times more potent than carbon dioxide.

Thus, although both fertilizers and manures—whether chemical or organic—are used to enhance crop growth, the application of fertilizers must be carefully managed to safeguard crop health, consumer well-being, and environmental sustainability.

Abdoul NIANG
Station Technical Manager
TROPICASEM, Senegal

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Testimony

Mr ZAKIROU Farmer in GOYANG , Far North Cameroon

A loyal Semagri customer, he used to grow several varieties of cabbage, including GREEN CORONET F1 and KK CROSS F1.

However, for the past three years, he has been producing the GREEN VELVET F1 cabbage variety, which he appreciates for its good earliness (around 2 to 2.5 months), its good post-harvest shelf-life (up to four weeks) and, above all, its enormous weight (over 8.7 kg).

In his opinion, GREEN VELVET F1 is his particular choice, and he recommends it to growers in the Far North of Cameroon.

Nathan KWAYEP, Regional Developer
AGRIVISION Cameroon

Potasium and nitrogen deficiency

Nitrogen deficiency causes yellowing from the bottom to the top of the foliage and stops the plant growth. This deficiency is due to few organic amendments and to soil depletion.

Symptoms and damage

Yellowing of older leaves while youngest parts remain green.

Yellowing expands from the edges towards the center of the leaves and provokes death between the leaf veins.

Damage prevention

- Apply a fertilizer maintenance.
- Perform a soil analysis before planting.
- Let the field rest after several successive cultures to allow the soil to regenerate its fertility.

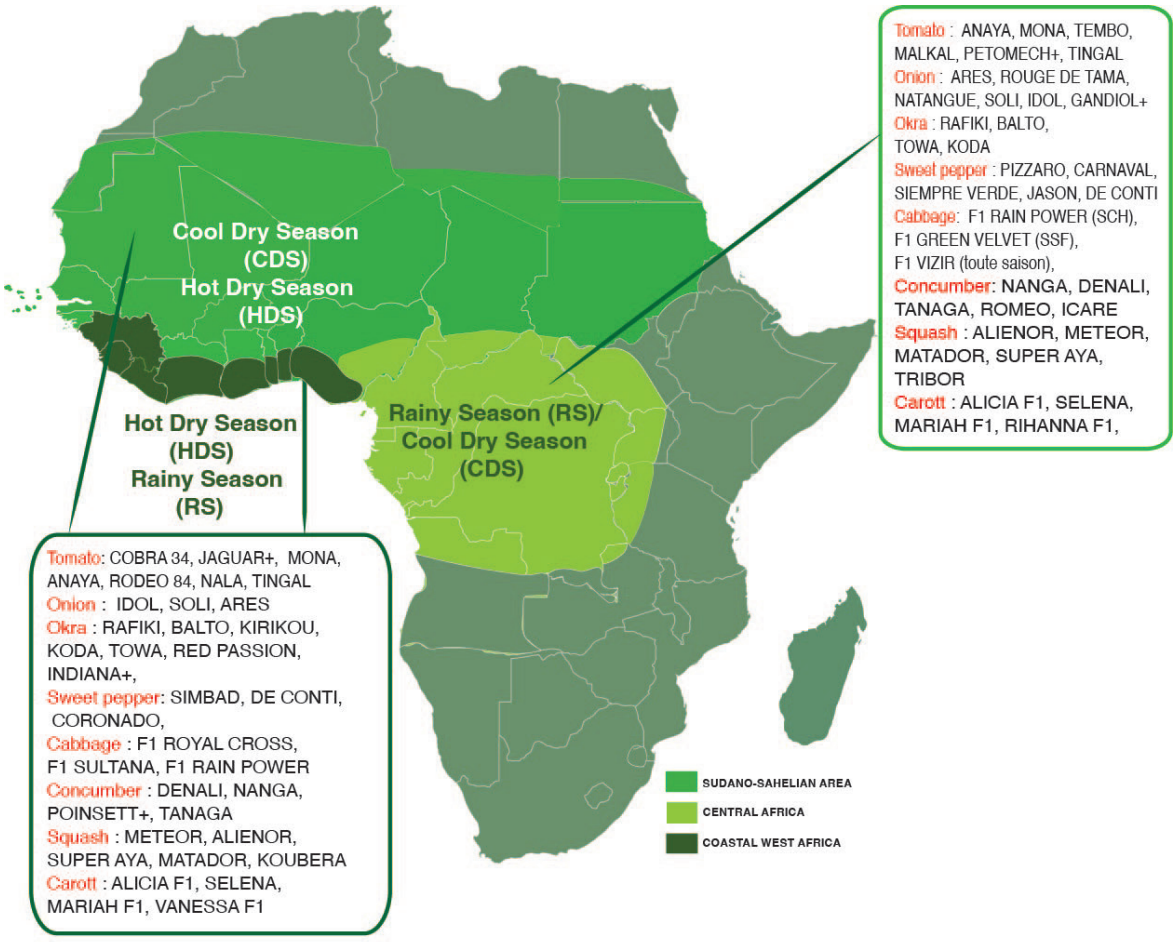
Information from the practical guide created by Technisem

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: february, march, april.

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)»

THE HIGHLIGHT OF THE SEASON

SELECTION crush of heart

OKRA INDIANA+

For the SOUDANO SAHELIAN AREA

« Let's try our favorite variety! »

INDIANA+ is a type of okra with good vegetative development and earliness (45 days). Its fruits are very mucilaginous and productive.