



BIOTECHNOLOGY AND MICROBIAL SOLUTIONS OF THE HIGHEST QUALITY For an innovative and sustainable agriculture around the world

Since 1970, when the American company Crawford Keen & Company settles in Argentina, we have been producing, developing and selling reliable products with honesty, teamwork and commitment



The primary objective of CKC is to generate the greatest client satisfaction by providing effective solutions to enhance crops by improving early development, health and yields of the plants with a low impact in the environment

CKC is technologically linked with INTA (National Institute of Agricultural Technology) through an agreement for support in research, development and quality control. Its production plant is located within the INTA Castelar Technological Innovation Park. The INTA is an argentine decentralized world-leading research institute in agrotechnological development

BIOLOGICAL LINE

Soybean

BIOLOGICAL LINE

CKC Soy



Seed treatment of inoculant for atmospheric nitrogen fixation formulated in peat substrate.

It contains strains of Bradyrhizobium japonicum provided and controlled by INTA, genetically selected for its specificity, infectivity that ensures the greatest biological nitrogen fixation. Supplying crop nitrogen requirements, achieving maximum yields. Formulated based on micronized sterile peat, which enables high adhesion to the seed. Formulation developed for marginal areas or unfavorable conditions.

CKC Protect

Liquid bacterial protector to be applied in seed treatment with inoculants.

Formulation with polysaccharides and substances that protect and enhance the life of the bacteria on the surface of the seed and soil, promoting greater and more powerful nodulation even in unfavorable conditions.

It allows to pre-inoculate 20 days before to the date of sowing. To protect seeds from unfavorable climate and soil conditions.



CKC Liquid Soy



Seed treatment of liquid inoculant for atmospheric nitrogen fixation.

It contains strains of Bradyrhizobium japonicum with a concentration of > 5×10^9 CFU / ml in a sterile liquid substrate. May be applied with chemical seeds treatments (fungicides, insecticides, fertilizers). For its high number of bacteria and low liquid, allows a very good distribution of inoculums without excessively wet seeds. For previously cured inoculating seeds.

CKC On Line Soybean

Liquid inoculant for atmospheric nitrogen fixation to be applied in the sowing.

This formulation of Bradyrhizobium japonicum inoculant drips directly onto the sowing line with furrow application equipment simultaneously in the sowing. It is composed of bacteria of Bradyrhizobium japonicum selected for their ability to Fix Nitrogen from atmosphere and nodules in soybeans crops. Not necessary to use cold conditions for proper storage.

CKC Liquid LLP



Liquid inoculant for atmospheric nitrogen fixation for PROFESSIONAL SEED TREATMENT for Soybeans for long anticipated application in seed treatment.

The formulation contains *Bradyrhizobium japonicum* inoculant in high concentration with new polysaccharides and protectors, that allows bacteria survive for more time on seeds surface.

CKC Protect PROFESSIONAL



Bacterial protector for PROFESSIONAL SEED TREATMENT formulated with components that protect the bacteria from the effects of drying.

This allow them to remain active for a longer time on the surface of the seed until they are sown. It is recommended to make the premix with the inoculant so that the bacteria is integrated into the protector. Professional Inoculation up to 60 days before planting.

BIOLOGICAL LINE

Forages

BIOLOGICAL LINE

CKC Lucerne & Melilotus

Inoculant for atmospheric nitrogen fixation applied in seed treatment.

Peat formulation based on *Sinorhizobium meliloti* strains, genetically selected for its specificity, infectivity, high nodulation and nitrogen fixation ability. Ensures the highest biological nitrogen fixation, meeting with the crops needs, achieving maximum yields in Lucerne and Melilotus. It can be stored at room temperature and it does not require any special storage conditions.

CKC Clover



Inoculant for atmospheric nitrogen fixation applied in seed treatment.

Peat formulation based on *Rhizobium legominosarium biov trifolii* strains genetically selected provided by INTA.

Inoculants of direct application manufactured in sterile conditions that ensures the presence only of the beneficial strains.

CKC Lotus

CKC LOTUS

Inoculant for atmospheric nitrogen fixation applied in seed treatment.

Peat formulation based on *Mesorhizobium spp.* strains genetically selected and provided by INTA.

Inoculants of direct application manufactured in sterile conditions that ensures the presence only of beneficial strains of maximum quality.

BIOLOGICAL LINE

Chickpea

CKC Liquid Chickpea

Liquid inoculant for atmospheric nitrogen fixation applied in seed treatment.

Formulated with two strains of *Mesorhizobium ciceri*, chosen for their ability of fixing nitrogen and also for their infectivity that ensures the most effective nodulation. Due to its exclusive formulation it does not require any special storage conditions.

CKC PROTECT promotes greater adhesion to the seed, protects the bacteria from drying out and nourishes and feeds them keeping the metabolism between inoculation and germination.



CKC Liquid On Line Peanut

Liquid inoculant for atmospheric nitrogen fixation to be applied directly in the furrow during the sowing.

It is made up of strains of *Bradyrhizobium spp.* selected for their ability to fix nitrogen and nodulation in growing peanuts. It is formulated and packaged in a sterile environment so that it does not contain any contaminating organism. Due to this unique formulation it is not necessary the use of cold for storage. It is applied simultaneously when planting directly in furrow with application equipment, to preserve seeds coat.

CKC Stick Peanut

Liquid inoculant for atmospheric nitrogen fixation applied in seed treatment.

Manufactured of strains of *Bradyrhizobium spp*. selected for their ability to fix nitrogen and nodulation in peanuts. It is formulated and packaged in a sterile environment so that it does not contain any contaminating organism. Formulation based on micronized sterile peat with polymers that make the bacteria keep on the surface seed without the addition of other substances.

BIOLOGICAL LINE

Vetch, Peas, Lentil

CKC Liquid Vetch, Peas, Lentil

Liquid inoculant for atmospheric nitrogen fixation applied in seed treatment.

Manufactured with strains of *Rhizobium leguminosarum biovar viciae* bacteria selected for their infectivity and ability of biological nitrogen fixation. The liquid formulation in a sterile environment ensures a better distribution on the seed and easier application.

CKC PROTECT promotes greater adhesion to the seed, protects the bacteria from drying out and nourishes them keeping your metabolism between inoculation and germination



BIOLOGICAL LINE

Many crops

PLANT NUTRITION

Many crops

TRIBAC



It is a **biofertilizer** based on microorganisms and plant growth promoting substances

- ► It contains *Pseudomonas fluorescens*, a bacteria that facilitates optimal solubilization of phosphorus, stimulates plant growth and provides plant protection.
- ► The special formulation contains metabolites that promote better root and vegetative development, achieving more vigorous plant with a better response to different stress factors.
- ► These integrated promotion achieve an early and healthier growth of the crops which means higher yields.

The application of TRIBAC is in seed treatment or in furrow during the sowing.

Its formulations are adapted to many different crops: soybean, maize, sorghum, wheat, barley, potato, rice, peanut, sunflower, tomato, oats, sugarcane, barley, rape, beans, chickpeas, pea, lentils, forage, vetch, lettuce, carrots, cereals and vegetables, etc.

PLANT NUTRITION

Many crops

Vita fértil Phosphites K-Mn

Biostimulant and **self-defense inducer** formulated with organicbiological compounds high absorption and translocation.

- ▶ STIMULATES growth by acting on the hormonal system
- ► STRENGTHENS tissues of the trunk, neck and root increases production of lignin FUNGISTATIC action of Potassium phosphite ion.
- ► CORRECT manganese deficiencies when methabolic pathways that are blocked after glyphosate applications on soybean (RR).
- COVERS the needs of the reproductive stages and grain filling or fruit.
- ► Acts as RESISTANCE INDUCTOR.

Formulation adapted for foliar, seeds treatment, drench and fertirrigation

Bioamino-L®

It is a **biofertilizer** / **biostimulant** that activate soils and enhance plantings, obtained from proteins of marine origin (salmon)

- ▶ Provides a substantial improvement in the physical-chemical properties of the soil.
- ► It favors organic life and soil microorganisms.
- Improves the growth of the root system of plants.
- Increases the availability of nitrogen from the soil.
- ▶ Improves the vigour of plants to face stressful situations.
- Protects bacteria in seed treatment applications

This liquid organic amendment has a high content of organic matter of non-humic origin, fulvic acids, polypeptides of very high biological quality, macronutrients (N, P, K, Ca, Mg) and micronutrients (Zn, Mn, Fe) that are easily assimilated. for the vegetables.

Aminoterra®

It is a **biofertilizer** / **biostimulant** for foliar application or irrigation in crops, composed of amino acids obtained from proteins of marine origin (salmon)

- ▶ It induces the formation of healthier, more resistant and vigorous plants.
- Strengthens and recovers plants subjected to stress (drought, frost, high temperature, salinity).
- Directly nourishes the plant with amino acids, generating great energy savings
- Stimulates rapid root and aerial growth of plants.
- ► Increases the rate of absorption of nutrients.
- Better plants, more potential, better results.

It also has an interesting content of macronutrients (N-P-K-Ca-Mg), micronutrients (Zn-B-Mn-Fe) and fulvic acids.

Bioil-S[®](Enhance)

It is a liquid oil biofertilizing / biostimulating for foliar applications as an adjuvant with insecticides, fungicides and herbicides, obtained from proteins of marine origin (salmon)

- ► It is rich in amino acids free of low molecular weight peptides, favoring the absorption via foliar and root, which allows plants to build their own proteins and tissues quickly, and with great energy savings, especially in environments with nutritional, thermal, water, light or saline stress.
- ▶ Improve their resistance and adaptation to all types of environments, but also increase the capacity of synthesis of natural growth hormones with the consequent increase in productive potential and quality of all their tissues (roots, leaves, stems, flowers and fruits).

Bioil-S also has an interesting content of micronutrients which contributes to a successful nutrition in all types of crops, vegetables and fruits.



ECOTR3S

ECOTR3SBIO

Last generation adjuvant with 3 ways of action that improve the quality of the application and the performance of the applied agrochemicals.



2. <u>pH control</u>: Protects the active ingredients from their destruction reducing losses due to hydrolysis

3. <u>Cation sequestrant</u>: *improves the activity of the agrochemical by preventing the active principle from being inactivated.*





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