Cynoyl Z
Special

agriges

+ safe

+ yield

+ quality

Green Path

Produce more and produce healthy!

Each Agriges product is born in the rigor of scientific investigation, respecting the environment and the operator and it is the practical response to specific field problems. Agriges pays special attention to the new contaminants highlighted by different players in the food supply chain and in particular by the GDO, to find solutions that meet the needs of the entire supply chain, with the utmost attention to the protection of the environment. This is the core of the Agriges Green Path project, that aims to provide technical means to obtain abundant productions, which have little impact on the environment and are safe for human beings.

+ safe | + sustainable | + yield | + quality | - chemistry | - pollution

FTS Field Technical Service

The research is at the core of company policy and that's why Agriges boasts two internal labs and a group of field investigators: Agriges Field Technical Service.

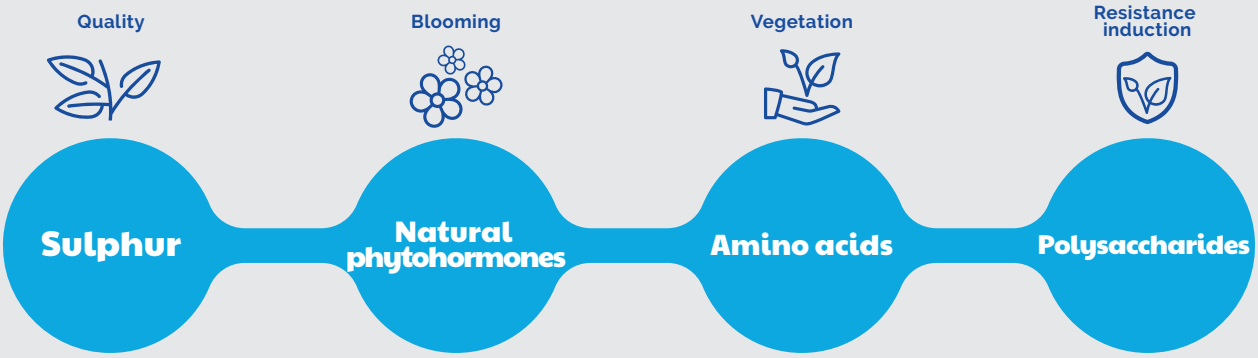
FTS is the organization of Agronomists and professional experts that supports the sales network and tests Agriges products in Italy and worldwide. FTS identifies a problem or field need, conducts functional testing and repeatability of the new Agriges formulations and implements its development on all crops of agricultural interest.

As part of the Green Path project, the FTS team works with research organizations, essay centres, universities, cooperatives and farms to research and develop new products.

Why Cynoyl Z Special?

Cynoyl Z Special is a product of great effectiveness and versatility as it combines and enhances the action of plant and seaweed extracts with Sulphur.

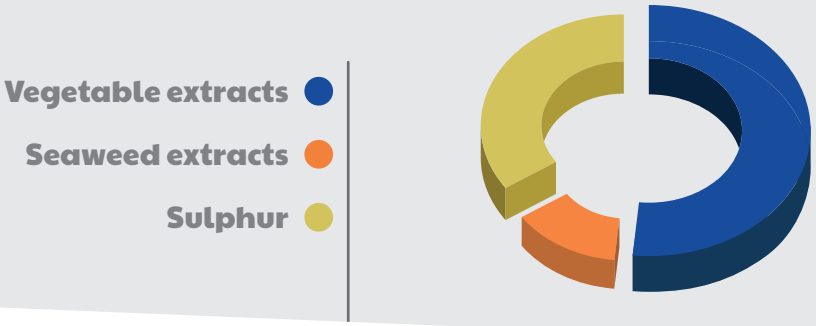
The presence of 100% plant-based **amino acids, polysaccharides, natural phytohormones, Sulphur and other bioactive components** can stimulate the uniformity of sprouting, flowering, vegetation and have interesting effects on production, as well as activate the plant's natural resistances.



What characterizes Cynoyl Z Special is the high fineness of Sulphur particles and the ability to distribute and penetrate through treated surfaces.

This is made possible thanks to RyZea technology, which makes the formulation stable and particularly active the different natural components of Cynoyl Z Special. The product, in fact, is assimilated by the treated plants, improving quality production and activating the response to external stresses (water stresses, thermal stress, saline stress, etc.).

Precious natural components



Composition

Total nitrogen (N)	**1,5 %** (w/w)	**1,9 %** (p/v)
Organic nitrogen (N)	**1,5 %** (w/w)	**1,9 %** (p/v)
Carbon (C) of biological origin	**10,0 %** (w/w)	**12,7 %** (p/v)
Organic matter (with nominal molecular weight <50kDa)	**35,0 %** (w/w)	**44,4 %** (p/v)
Total Sulphur (S)	**31,0 %** (w/w)	**39,3 %** (p/v)

Sulphur

Effect on the plant

Sulphur is a nutrient strongly in demand by the plant, as it is a constituent of plant proteins and Sulphur-containing amino acids. Sulphur participates in the synthesis of **Glutathione** (Pederson et al., 1997) which is a tripeptide actively involved in the **interruption of dormancy**. This greatly improves the awakening of tree crops and evens out sprouting and subsequent phenological phases, such as flowering and attaching.

NUTRIENT, UNIFORMITY, STRESS-RELIEVING

• **QUALITY** • **YIELD**

Auxins, Cytokinins and Gibberellins

Effect on the plant

The specific ratio of natural phytohormones contained in Cynoyl Z Special is able to stimulate and even out **budding and flowering**. This relationship also induces plant growth (cell division and relaxation) and the development of the root system that improves responses to stress, such as radical asphyxiation, drought, etc.

CONSISTENCY OF SPROUTING, FLOWERING AND FRUITING

Betaines

Effect on the plant

Betaines are cytoplasmic osmolytes that **protect the cell** against osmotic stress, drought, high temperatures and salinity. Compared to other types of osmolites, betaines do not disturb normal cellular activities, allowing the plant to photosynthesize and protect the cell from the effects of drought. In addition, betaines also have important effects on chlorophyll by slowing its degradation (Blunden et al. 1996a).

ANTISTRESS ACTION AGAINST COLD AND DROUGHT

Vegetable extracts: Polysaccarides

Effect on the plant

Polysaccarides improve the **resistance of cell walls** by reducing the oxidative decomposition of cytochinines. In addition, they improve the conveyance of nutrients in plants.

CHELATING, BIOACTIVATING, STRESS-RELIEVING ACTION

• **YIELD**

Vegetable extracts: Amino acids and peptides

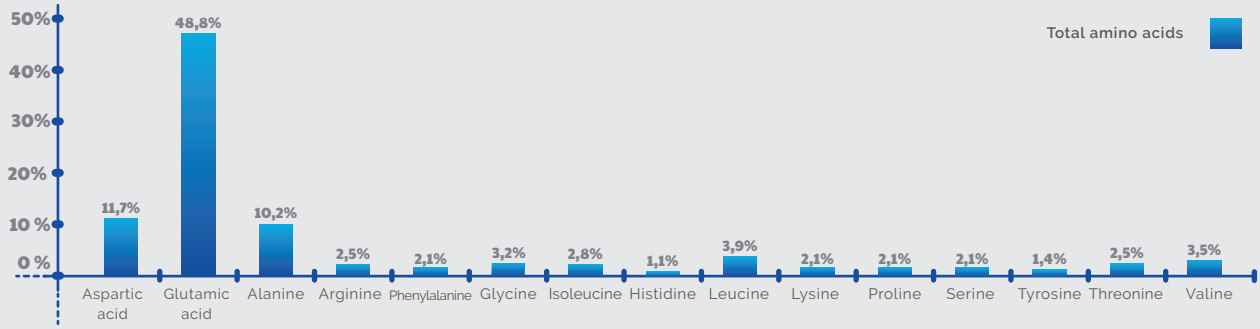
Effect on the plant

They immediately enter the energy cycle by providing energy from easy absorption. Amino acids have a vehicular action and are fundamental to the water balance of the cell. In addition, they lead to both qualitative and quantitative improvement in production.

VEHICLE ACTION, BIOACTIVE, STRESS-RELIEVING

• **QUALITY**

Cynoyl Z Special aminogram



It highlights a good content of aspartic acid and glutamic acid that have a direct action on plant development. The product does not contain hydroxyproline and hydroxylisin, or the typical animal amino acids, present in hydrolyzed collagen (leather and other animal byproducts), which have no structural and functional importance for plants.

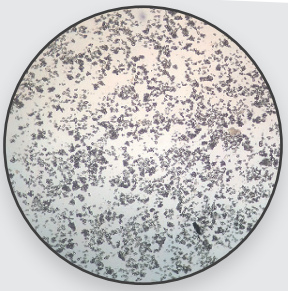
The exclusive RyZea production technology

RyZea is the production technology that stabilizes the different organic plant components of Cynoyl Z Special. The production technology aims to make the action of Sulphur and valuable natural components (amino acids, polysaccarides, betaines) highly effective, improving their distribution on plant surfaces and assimilation through the leaf.

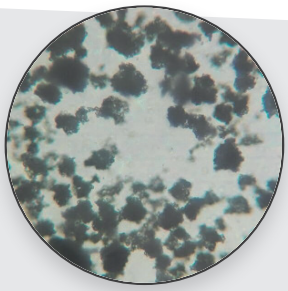
In addition, Cynoyl Z Special's RyZea technology physically prevents the presence within the product of particles larger than 75 microns.

This ensures the perfect emulsion and stability of the formulation but above all the full functionality of Cynoyl Z Special.

Cynoyl Z special
dilution 1:10

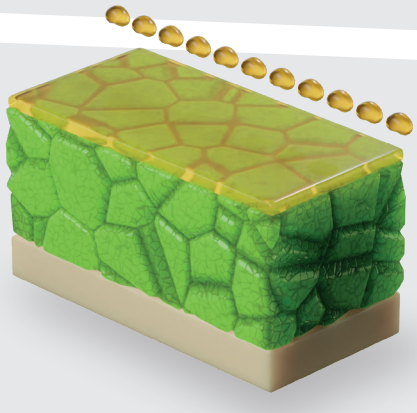


Competitor
dilution 1:10



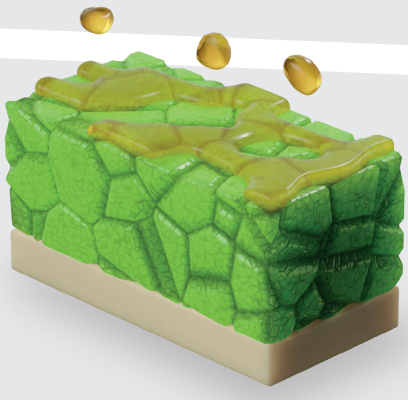
Sulphur + organic matter
dilution 1:10

Microscopic images of sulphur applied to glass, at the same dosage, for checking its wettability and coverage.



Cynoyl Z Special

Uniform distribution on leaf surface and **high absorption** through the leaf lamina .



Competitor

Not uniform distribution on leaf surface and **reduced absorption** through the leaf lamina.

The Sulphur contained in Cynoyl Z Special is characterized by a homogeneous caliber of micelles, guaranteeing a high effectiveness of action.

The fluid formulation easily penetrates the treated surfaces (even in the wood coves) and ensures a homogeneous distribution over the entire surface and excellent resistance to the elements. The high ability of Cynoyl Z Special to distribute itself on surfaces prolongs the action of its components that can improve plant well-being and induce an increased yield quality.

Field results

The effects of the Cynoyl Z Special on the vegetative-productive activity of Actinidia

Boris et al., (2010), Department of Botanical Arboriculture and Plant Pathology.

Objective of the study

Evaluate the effects of Cynoyl Z Special on the vegetative-productive activity of actinidia, comparing them with those of an organic compound to stimulate vegetative recovery.

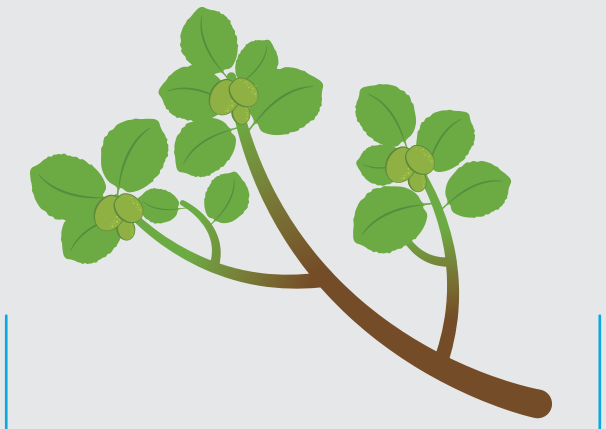
Results

Cynoyl Z Special induced a better uniformity of budding and a greater production per plant compared to the control sample, achieving also slightly better results compared to the company test sample, from which it differs clearly for other qualitative properties such as size and fruit colour.

Production per plant and average weight of fruits at harvest.

Thesis	Production		Average weight (g fruit -1)
	N° of fruits/plant	kg/plant	
Control	307a	26,2a	85,5b
Treated	408b	31,9b	78,4a
Cynoyl Z Special	429b	35,8b	83,8b

Cynoyl Z Special improves sprouting uniformity and all the phenological phases to follow such as flowering and fruiting



Cynoyl Z Special

Control

Compared to the Untreated, Cynoyl Z Special has:

- Significant advance of sprouting;
- Increased the number of fruits per plant;
- Anticipated fruits ripening;
- Improved the quality characteristics of the fruit: larger size and a more intense pulp colour.

Objective of the study

Comparative chemical-physical study of the effects of Cynoyl Z Special as rice fertilizer

Evaluate the effectiveness of Cynoyl Z Special on the production performance of rice (var. JSendra) by analyzing different physical, chemical and nutritional indices, which can improve production and performance at the mill.

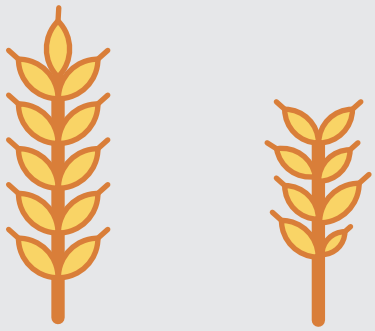
TrialRice

AGROLAB GROUP
Your labs. Your service.

Results

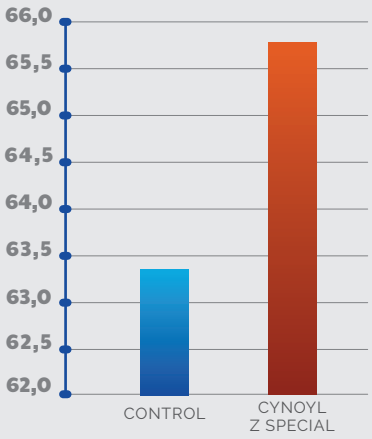
Cynoyl Z Special has positively influenced different qualitative and production parameters. In fact, Cynoyl Z Special:

- Increased rice production (tons/hectare) by about 2% compared to control;
- Induced a slight increase in specific weight and, as a result, increased the weight of 1000 caroxides compared to the control;
- Increased the percentage content of starch, sugars and protein compared to control.



Cynoyl Special | Control

Production increment control



Crops	Leaf Application	Dose
TREE	Applications before vegetative recovery	25-30 l/ha
	Throughout the growth cycle	250-400 ml/hl
HORTICULTURAL	Throughout the entire growth cycle	250-400 ml/hl
INDUSTRIAL	Throughout the entire growth cycle	250-400 ml/hl
CEREALS	Upon shoot emergence	4-10 l/ha

WARNINGS

When mixing with other products it is always advisable to carry out tests of mixture and compatibility on a limited number of plants. Do not mix with copper salts, mineral oils, products with nitrate, chlorinated products, with oxidizing agents and with all products normally not mixed with Sulphur except in the preceding phases of vegetative awakening.

Shake well before using.

Formulation
Liquid suspension

Packages
1 - 5 - 10 - 20 l

Density (T=20°C
approx. 1270 kg/m^3

pH
(sol. 6%)
approx. 4,8

Conductivity
(sol. 10%)
approx. 8,0 dS/m

Exclusive production technology by Agriges

Foliar application

Resistance Inductor

Allowed in organic farming

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