

TEST OF EFFECTIVENESS of ACF-SR Bio STIMULANTS IN GRAPE RED GLOBE

Vitis vinifera sp. IN CASMA, ANCASH-PERU.

1. Characterization

The region of Casma in Peru, has agro ecological conditions suitable for the production of Red Globe -*Vitis vinifera* sp. Abiotic factors present the following conditions for production:

- Temperature range: Minimum 18 C- Maximum 28 C.
 - Texture: Clay clayey - sandy.
 - Soil pH: 6.5
 - Water sources: Wells and irrigation canal.
 - Times of rain: Low area: Jun, Jul Ago, Sep.
- Transfer: Jan, Feb, Mar.

And the biotic factors are represented by certified nursery plants, which are frequently attacked by pests such as Chanchito floury, yellow and red spider mites and moths. There was no record of the application of inputs promoting endogenous microorganisms or the inoculation of new beneficial populations.

The Fundo La Promesa Frutos Hergu - SAC has a total extension of 12 hectares, of which 5.0 hectares are cultivated of grapes with six (6) years of age, which were treated with BluePlanet technology in addition to the conventional technical package that includes the addition of 20 tons of organic matter, beef guano / ha., koripacha 3 ton / ha (organic matter, residual fermented), 80 unds / ha of calcium nitrate, 350 unds / ha. Of potassium sulfate and 80 unds / ha of magnesium sulfate.

2. Application protocol

Dosing as follows. The first application of was used as an inoculation of the soil:

First Dose of ACF-SR: 1gal / ha on the ground, at the time of application of organic fertilizer.

Second Dose of ACF-SR: 1 gal / ha on the ground, ten (10) days later.

The second and third doses were carried out using the same dose, but taking into account the phenological stages as follows:

ACF-SR: 1gal / ha to the foliage, after the Production Pruning in the Stage of the Expanded Leaves with presence of inflorescence.

ACF-SR: 1 gal / ha to the foliage, in the Stage of Envero, stage prior to Maturation, Raleo and Harvest.

3. Results obtained

The production of the 2016 season was 30 Tons.

With ACF-SR in 2017, this rose to 38 Tons, a 26.7% increase in yield.

In terms of quality, 90% of the production was first quality Jumbo

With regard to limiting diseases such as Botrytis, caused by the pathogen *Botrytis cinerea* pers and Mildium, no level of infestation was observed with ACF SR use. ; and Oidium caused by *Uncinula necator* was below economic damage.

Regarding the pests, there was no presence of Chanchito, Yellow or Red Spider, and moths were minimal.

Photo 1: Stage Pruning Production.



Photo 2: Phenological Stage Cluster Compaction.



Photo 3: 90% Premium Quality Jumbo



Photo 4: Control, Without Bio treatment or Koripacha

