

TECHNICAL APPLICATION PROTOCOL

Cucurbits

Recommended dose per hectare and acre

Biological system for soil, roots and foliar growth

The InnovaTech biological protocol for cucurbits includes 5 applications per cycle: one soil application for initial preparation, one seed inoculation application, and three foliar applications during early crop development.

1

Soil preparation

Soil application by drench or another suitable method.

2

Seed inoculation

Coating / impregnating seed with the biological solution.

3–5

Foliar applications

Three foliar applications with Evolution Community and Nano Red Nutrient.

Total product quantity per cycle

Product	Code	Per hectare	Per acre
Evolution Community	EC	500 g	202 g
Ancient Root Community	ARC	500 g	202 g
Nano Red Nutrient	NRN	750 g	304 g

Application summary

Application	Timing	Products
1. Soil preparation	Before crop establishment	EC + ARC
2. Seed inoculation	7–10 days after the 1st application	EC + ARC
3. First foliar	15–21 days after planting	EC + NRN
4. Second foliar	10–15 days after the 3rd application	EC + NRN
5. Third foliar	10–15 days after the 4th application	EC + NRN

Chlorine-free water

Use chlorine-free water in all applications to protect microorganism viability.

Conversion

1 hectare = 2.47 acres. Per-acre doses are rounded for easier field application.

Agronomic advice

Apply according to best agricultural practices and adjust water volume by equipment, location, climate and crop conditions. Listen to your field.

1st Application: Soil Preparation

Drench or another soil application method

Recommended timing

Apply during soil preparation, before establishing the crop. Direct the application to the soil and ensure adequate moisture levels.

Products and doses

Product	Code	Per hectare	Per acre
Evolution Community	EC	100 g	40 g
Ancient Root Community	ARC	100 g	40 g

Preparation and application

A) Prepare the EC solution

Mix 100 grams/hectare of EC in 1 liter of water. Wait at least 6 hours before adding the ARC solution to the EC solution. The indicated mixing window is 6 to 72 hours.

B) Prepare the ARC solution

Mix 100 grams/hectare of ARC with 1 liter of water. ARC should not be hydrated more than 24 hours before being mixed with EC and applied.

C) Mix immediately before application

Mix the EC and ARC solutions, then dilute the complete solution in the volume of water required to cover one hectare. Do not let the EC + ARC mixture rest.

D) Application

Irrigate the soil with the appropriate equipment, directing the application directly to the soil. Ensure that the soil maintains adequate moisture levels.



Important

The required water volume varies depending on equipment, location and climate conditions. Consult a local agronomist or use the grower's best agricultural practices.

Microorganism handling

Microorganisms are sensitive to UV light. Prepare and store mother solutions in opaque containers and shaded areas; keep them in a cool, dry place; apply during periods of low UV radiation, preferably late in the afternoon.

2nd Application: Seed Inoculation

7–10 days after the 1st application

Recommended timing

For best results, inoculate the seeds 7 to 10 days after the 1st application.

Products and doses

Product	Code	Per hectare	Per acre
Evolution Community	EC	100 g	40 g
Ancient Root Community	ARC	400 g	162 g

Preparation and application

A) Prepare the EC solution

Mix 100 grams/hectare of EC in 1 liter of water. You have a 6 to 72 hour interval to mix the EC solution with the ARC solution. Wait at least 6 hours before adding ARC to EC.

B) Prepare the ARC solution

Mix 400 grams/hectare of ARC with 1 liter of water. ARC should not be hydrated more than 24 hours before being mixed with EC and applied.

C) Mix before seed inoculation

Mix the EC and ARC solutions and dilute with chlorine-free water if needed to ensure uniform coverage of the seed quantity required per hectare.

D) Application

After inoculating the seeds, or immediately while inoculating them, plant as usual. Apply any remaining solution used for seed inoculation directly to the soil.

Microorganism handling

Microorganisms are sensitive to UV light. Prepare and store mother solutions in opaque containers and shaded areas; keep them in a cool, dry place; apply during periods of low UV radiation, preferably late in the afternoon.

3rd Application: First Foliar Application

15–21 days after planting

Recommended timing

Apply 15–21 days after planting. Apply even if the plant is small; do not skip this application.

Products and doses

Product	Code	Per hectare	Per acre
Evolution Community	EC	100 g	40 g
Nano Red Nutrient	NRN	250 g	101 g

Preparation and application

A) Prepare the EC solution

Mix 100 grams/hectare of EC in 1 liter of water. You have a 6 to 72 hour interval to mix the EC solution with the NRN solution. Wait at least 6 hours before adding NRN to EC.

B) Prepare the NRN solution

Mix 250 grams/hectare of NRN with 1 liter of water.

C) Mix right before foliar application

Dilute the EC + NRN mixture in chlorine-free water as needed to ensure uniform foliar coverage per hectare, and apply as soon as possible. Do not let the mixture rest.

D) Foliar application

Apply the solution to foliage with suitable equipment such as sprayer, drone, tractor, or other foliar application equipment.



Important

The required water volume varies depending on equipment, location and climate conditions. Consult a local agronomist or use the grower's best agricultural practices.

Microorganism handling

Microorganisms are sensitive to UV light. Prepare and store mother solutions in opaque containers and shaded areas; keep them in a cool, dry place; apply during periods of low UV radiation, preferably late in the afternoon.

4th Application: Second Foliar Application

10–15 days after the 3rd application

Recommended timing

Apply 10–15 days after the third application to continue biological foliar support.

Products and doses

Product	Code	Per hectare	Per acre
Evolution Community	EC	100 g	40 g
Nano Red Nutrient	NRN	250 g	101 g

Preparation and application

A) Prepare the EC solution

Mix 100 grams/hectare of EC in 1 liter of water. You have a 6 to 72 hour interval to mix the EC solution with the NRN solution. Wait at least 6 hours before adding NRN to EC.

B) Prepare the NRN solution

Mix 250 grams/hectare of NRN with 1 liter of water.

C) Mix right before foliar application

Dilute the EC + NRN mixture in chlorine-free water as needed to ensure uniform foliar coverage per hectare, and apply as soon as possible. Do not let the mixture rest.

D) Foliar application

Apply the solution to foliage with suitable equipment such as sprayer, drone, tractor, or other foliar application equipment.



Important

The required water volume varies depending on equipment, location and climate conditions. Consult a local agronomist or use the grower's best agricultural practices.

Microorganism handling

Microorganisms are sensitive to UV light. Prepare and store mother solutions in opaque containers and shaded areas; keep them in a cool, dry place; apply during periods of low UV radiation, preferably late in the afternoon.

5th Application: Third Foliar Application

10–15 days after the 4th application

Recommended timing

Apply 10–15 days after the fourth application as the final foliar support in this protocol.

Products and doses

Product	Code	Per hectare	Per acre
Evolution Community	EC	100 g	40 g
Nano Red Nutrient	NRN	250 g	101 g

Preparation and application

A) Prepare the EC solution

Mix 100 grams/hectare of EC in 1 liter of water. You have a 6 to 72 hour interval to mix the EC solution with the NRN solution. Wait at least 6 hours before adding NRN to EC.

B) Prepare the NRN solution

Mix 250 grams/hectare of NRN with 1 liter of water.

C) Mix right before foliar application

Dilute the EC + NRN mixture in chlorine-free water as needed to ensure uniform foliar coverage per hectare, and apply as soon as possible. Do not let the mixture rest.

D) Foliar application

Apply the solution to foliage with suitable equipment such as sprayer, drone, tractor, or other foliar application equipment.



Important

The required water volume varies depending on equipment, location and climate conditions. Consult a local agronomist or use the grower's best agricultural practices.

Microorganism handling

Microorganisms are sensitive to UV light. Prepare and store mother solutions in opaque containers and shaded areas; keep them in a cool, dry place; apply during periods of low UV radiation, preferably late in the afternoon.