
H-85 OR COMPOST?
Redox
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H-85 OR COMPOST?

Soil organic matter has a host of benefits including supporting soil fertility, better water movement, and resistance to compaction. Traditionally we have added compost to help support soil organic matter. The research has shown that the decomposed carbon compounds from these inputs are driving the beneficial crop response that we see. These small carbon compounds that help the soil are divided into three categories; medium chain carbon (e.g. Humic Acid), short chain carbon (e.g. Fulvic Acid) and long chain carbon. On average, compost has only a few pounds of these small carbon compounds per ton. Generally, the remaining material is made up of relatively large chucks of organic matter such as fine wood chips and other hard to decompose plant parts. These will eventually break down in the soil but this can take several months to over a year.

Redox has developed a unique product based on these principles to help improve soluble soil carbon and provide crop benefit today. H-85 is a water soluble micro-crystal product containing 42% Humic Acid plus 43% other soluble carbon compounds (Fulvic Acid and Long Chain Carbon), equaling 85% soluble carbon. In addition, the product contains 15% potash (K2O). H-85 is unique in the market because of its pH stability, low dust formulation (microcrystal), and the inclusion of Fulvic Acid and Long Chain Carbon in the formulation. As a water soluble product it is easily applied through spray or irrigation systems. H-85 promotes a wide range of beneficial microbial growth as well as increases nutrient availability to the plant (see Redox Results). Supplementing your compost program with H-85 in-season is a valuable tool for providing soluble carbon to your crop and soil today.

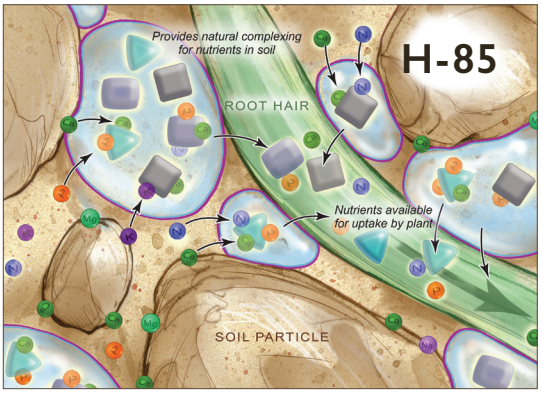
H-85

GUARANTEED ANALYSIS

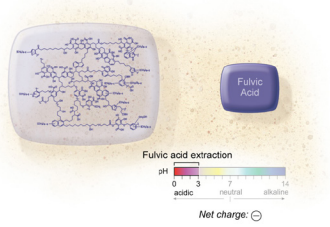
Soluble Potash (K_2O) 15%

Humic Acid..... 42%

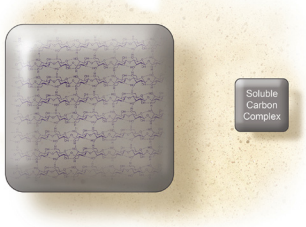
H-85 is a reacted plant nutrient high in soluble carbon. H-85 increases soil microbial activity due to short-, medium-, and long-chain carbon content. Apply to soil by controlled irrigation systems or spray on soil surface, allowing water to move product to the root zone. For optimum results, utilize 2 to 10 pounds per acre per crop cycle per year. Use rates will depend upon soil texture and crop requirements.



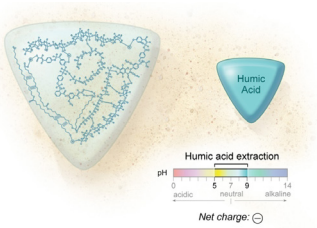
FULVIC ACID



SOLUBLE CARBON COMPLEX



HUMIC ACID



ROOT DEVELOPMENT

H-85 IMPROVES CROP CONDITIONS

AVOCADO

BACKGROUND

A trial was conducted to evaluate the relative benefit of adding soluble carbon to the soil from various sources.

THE TRIAL

WHO: The trial was conducted by the Colegio de Posgraduados–Chapingo and Soil FoodWeb Lab Mexico.

WHAT: The trial was performed on Hass avocado plants under controlled greenhouse conditions. H-85 was compared to virgin ground and a conventional humic product for relative microbial activity. In addition, H-85 was compared to fertilizer alone, and fertilizer plus conventional humic acid. H-85 was applied once at a rate of 10 lbs per acre.

WHERE: Uruápan, Michoacán, Mexico

WHEN: Application was early spring root flush

EVALUATION PARAMETERS

- Relative soil biological activity
- Plant weight
- Root mass volume

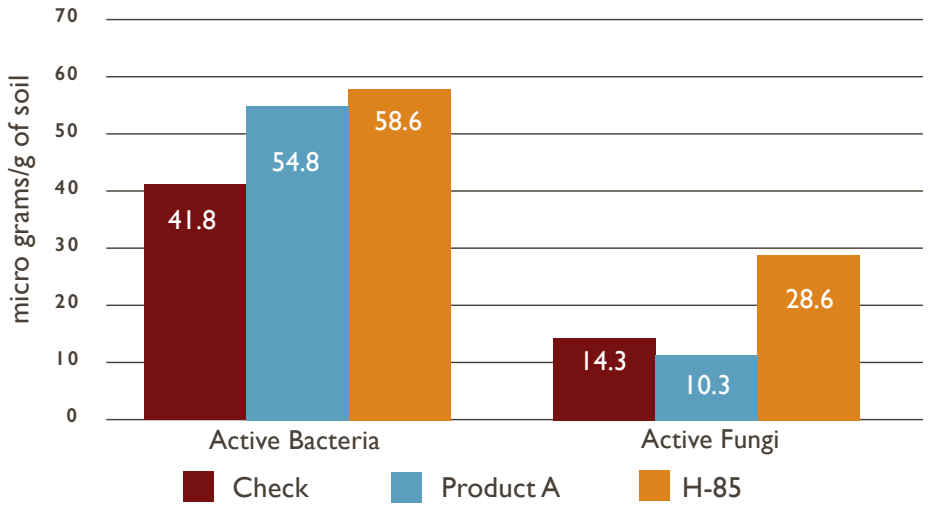
RESEARCH OBJECTIVE

The purpose of the trial was to measure the impact of H-85 on avocado plant growth and on microbial activity in the soil.

KEY OUTCOMES

Application of H-85 had a dramatic impact on plant response. Root mass was increased by 25%. Beneficial soil fungal levels increased by 100%.

MICROBIAL ACTIVITY EVALUATION



CROP PERFORMANCE

EFFECT OF SOIL MICROBIAL ACTIVITY

APPLE

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THE TRIAL

WHO: Dr. Zofia Zydlik

WHAT:

Applications of H-85 were applied 3 times at 3 lbs./acre

1. Depleted soil
2. Depleted soil + H-85
3. Fertile virgin soil
4. Fertile virgin soil + H-85

WHERE: Poznan University of Life Sciences, Poland

WHEN: Soil samples were collected three times:

1. Spring - Full bloom
2. Summer - After the period of intensive vegetative growth
3. Fall - Two weeks after final pick

RESEARCH OBJECTIVE

The purpose of the trial was to evaluate the effects of H-85 applications when compared to virgin soil.

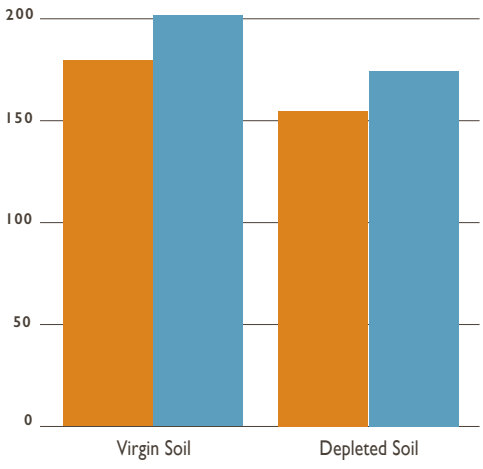
KEY OUTCOMES

There was positive crop response due to increased microbial activity.

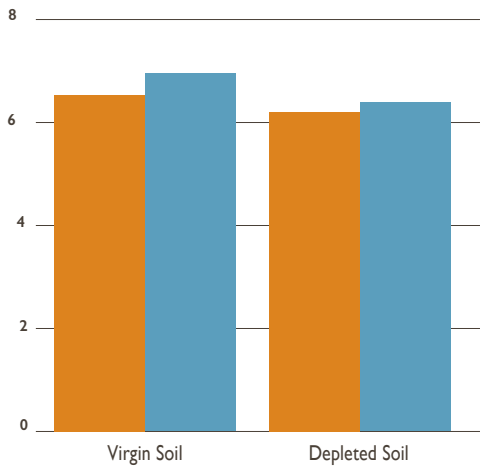
EVALUATION PARAMETERS

- Dehydrogenase Enzyme Activity
- Soil Respiration Rate
- Apple Leaf Area
- Yield
- Fruit Weight
- Firmness
- Fruit Brix

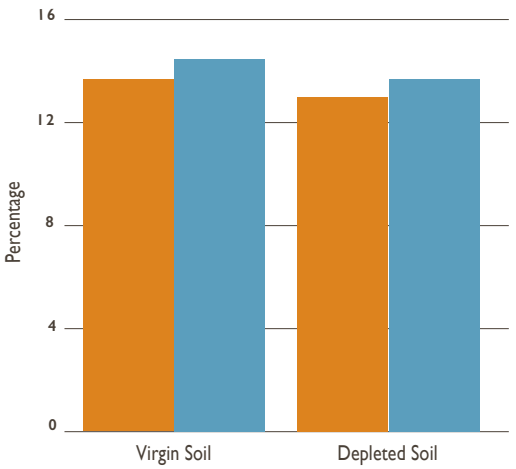
FRUIT WEIGHT



FRUIT FIRMNESS



DEGREE BRIX



Without H-85 With H-85

CROP PERFORMANCE

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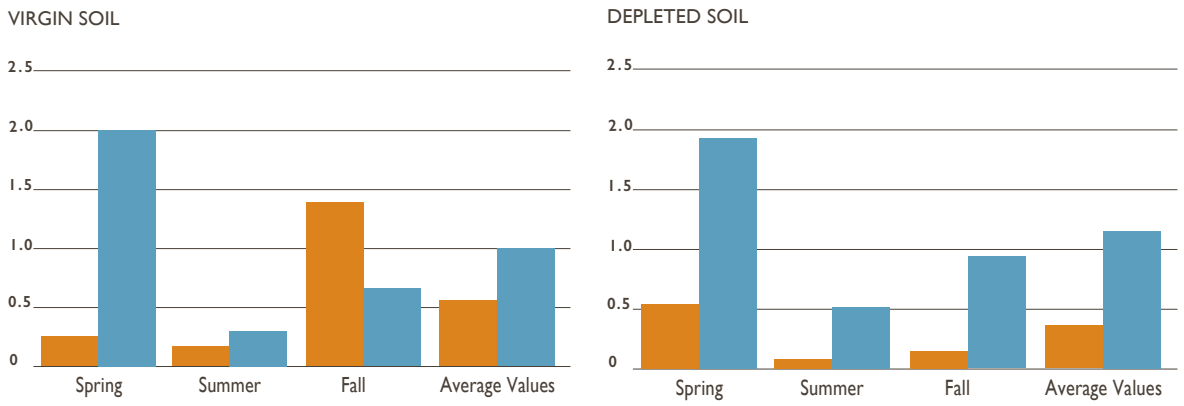
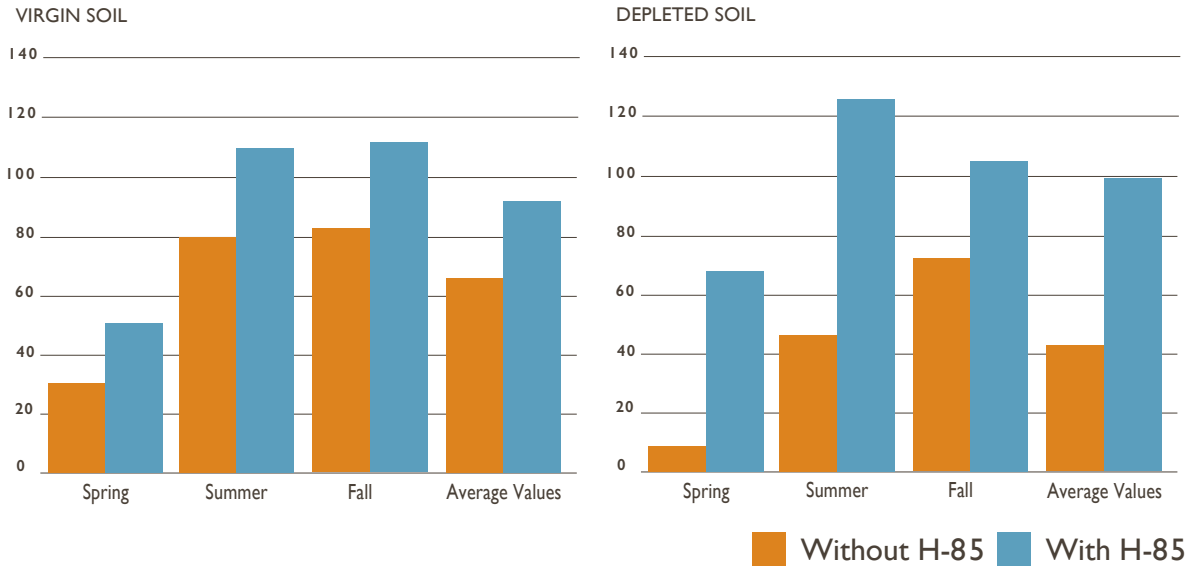
EFFECT OF SOIL MICROBIAL ACTIVITY

APPLE

DEHYDROGENASE ENZYME ACTIVITY



SOIL RESPIRATION RATE



APPLE LEAF AREA

Effect of use of the H-85 formula on Najdared cultivar apple leaves development (to the right)

NOTES

NOTES

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