



# C-100

## Activated Organic Carbon

Nutrient exchange and microbiome stimulant



Jeffries C-100 is an agricultural soil conditioner, pre-loaded with fertility forming biology, essential humified carbon with added Jeffries BioChar. It works quickly to balance soil pH, improve soil/root system efficiency and raise soil fertility.



**Increases long term soil fertility, growing efficiency, and improved cropping results**



**Mixes, bonds and buffers with hi-analysis fertiliser for maximum efficiency**



**Stimulates nutrient exchange with root systems**



**Naturally forms fertile soil aggregates**



**Encourages microbial capacity and activity**



**Increases moisture retention**

# JEFFRIES C-100 INCLUDES JEFFRIES BIOCHAR

A natural bio-charge and recharge system that bypasses adverse soil chemistry and provides a far better nutrient exchange with cropping root systems. Blending Jeffries BioChar pellets with hi-analysis fertilisers maximises the ability for fertiliser to remain close, active and able to be utilised by cropping root systems.



## JEFFRIES C-100 IS A BIO-CARBON SOIL FERTILITY BUILDER

Provides the soil conditioning elements all plants need to maximise their growth potential. A concentrated humus-forming organic pellet that features a very wide range of nutrition with the added benefits of Jeffries BioChar.

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Slow-release, and pH neutral, Jeffries C-100 doesn't burn or overdose plants to cause a setback or make them stress. Ideally suited to maximise the nutritional effects of high analysis fertilisers, buffering them close to the plant roots systems and preventing them from leaching away from the root mass profile.

Jeffries C-100 improves the texture and functionality of soils and through the diverse, humus promoting, micro-biome embedded in the concentrated organic matter. Jeffries BioChar carbon and beneficial microbes always contribute to a far healthier root system, disease and stress resistance, with better results in the growth and health of crops.

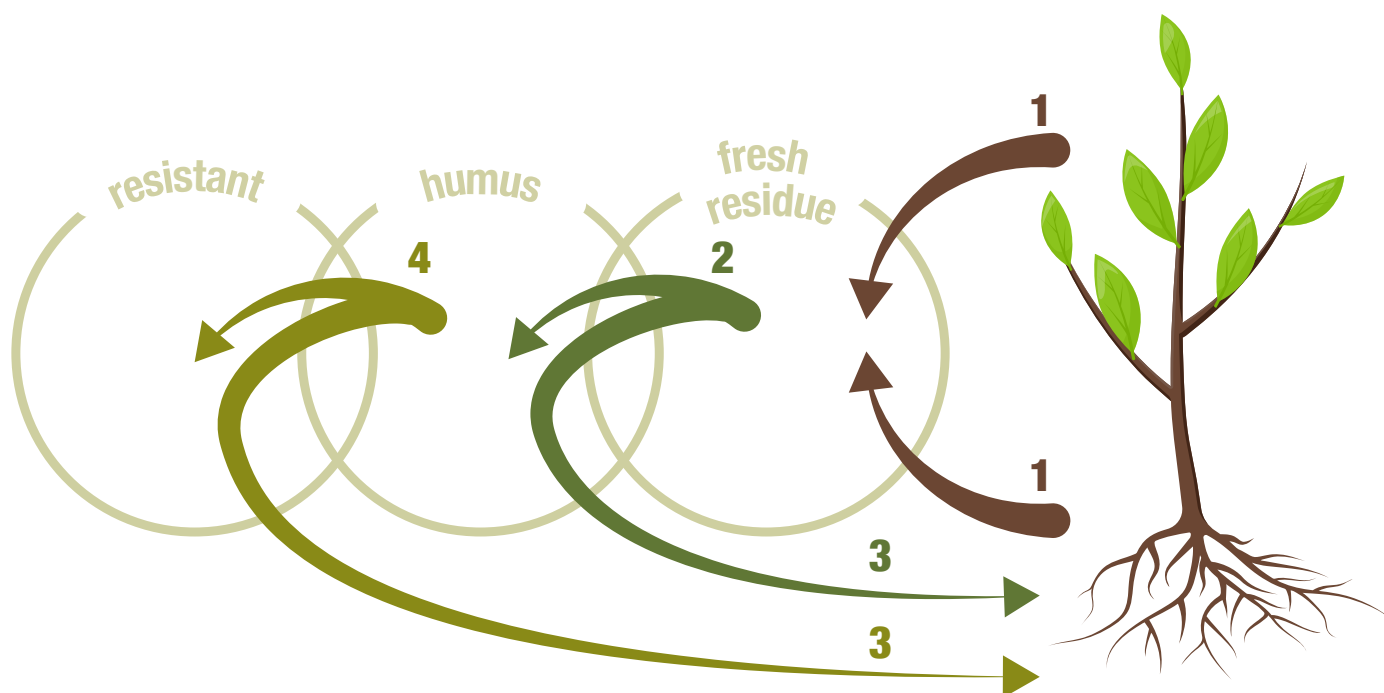
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Jeffries C-100 also provides a functional and reliable source of trace elements to supplement crops with needs that are not often addressed adequately. Essentially a fertility building, carbon-active, 'pro-humus' and 'pro-biotic' for the soil.

### HIGHLY EFFECTIVE IN CASES OF

- Low organic matter, especially soil organic carbon
- Low cation exchange capacity
- Low earthworm or beneficial microbial activity
- Non-wetting sands/loams or in cases of extreme soil pH
- High exchangeable hydrogen or heavy metals affected
- Compacted, anaerobic or salt affected soils

Jeffries C-100 provides the most important forms of fertility building soil organic carbon and humus, and the micro-biome to continue the humus forming processes, with residual stage 3 and 'resistant' stage 4 Jeffries BioChar in place to continually enable the humification processes in soil.



*Organic matter transforms from one form to another as it decomposes and cycles into different soil organic fractions (figure adapted from University of Minnesota extension publication WW-07402)*

### **Inputs:**

Plants and animals become part of the soil organic matter as they die or create by-products.

### **Transformation:**

Soil organisms break-up and consume organic matter, creating different forms of organic residues. For example, fresh plant residues are broken into smaller pieces (<2mm) and become part of the particulate organic matter fraction. This material decomposes further and a smaller amount of more biologically stable material enters the humus pool. Jeffries C-100 is a matured composition of stage 2, 3 and 4 humification processes.

### **Nutrient release:**

Nutrients and other compounds not required by microorganisms are released and are then available to plants. Jeffries C-100 is mainly composed of this stage 3 process enabling it to be fully engaged as a soil and plant fertility stimulant.

### **Stabilising organic matter:**

As the organic residues decompose, they become more resistant to further change. Jeffries provide this final and most enduring Stage 4 carbon benefit through Jeffries BioChar, ensuring none of the current and future working benefits of Jeffries C-100 are lost.

## APPLICATION RATES – KILOGRAMS PER HECTARE

Subject to soil test, soil type or for use in a soil remediation or combined amendments program. Suitable for various mechanical and belt-spreaders, blended with fertilizers or mineral amendments. Suitable for use in most air-seeders.

| VITICULTURE  | HORTICULTURE                       | PASTURE                       | PIVOT                                | BROADACRE                          |
|--|------------------------------------|-------------------------------|--------------------------------------|------------------------------------|
| <b>Dryland</b><br>100-500kg directly under canopy<br>300-500kg with interrow as well   | <b>Open Field</b><br>1,000-3,000kg | <b>Dryland</b><br>200-300kg   | <b>Onion/Potato</b><br>1,000-3,000kg | <b>Cereals</b><br>50-150kg         |
| <b>Irrigated</b><br>150-500kg directly under canopy<br>300-500kg with interrow as well | <b>Greenhouse</b><br>3,000-5,000kg | <b>Irrigated</b><br>300-500kg | <b>Pasture/Hay</b><br>200-1,000kg    | <b>Canola/Legumes</b><br>100-150kg |

### When blending Jeffries C-100 with hi-analysis fertiliser

Apply at least equal kilos of Jeffries C-100 pellets to hi-analysis rates. Ensure a Jeffries C-100 pellet is always paired in close proximity to the hi-analysis.

## CONTACT US TO LEARN MORE

