



COFFEE GROUNDS (HUMIC ORGANIC AMEND)

In agronomy, an organic amendment is a vegetal or animal origins material that applied to the soil produces an intense rising of the organic percentage on the horizontal layer.

The availability of organic matter in a soil brings improves its physical and chemical properties, the nutrition of the plant being rewarded by it. This is the reason such mixtures are widely used, and necessary to maintain the production quality and capacity of the soil.

Traditionally both manure and vegetal rests have been used as the main source of organic matter. However, not all materials have the same effect on the farming. Fresh manure or other non-stabilized products may easily degrade, causing a lack of nitrogen and the release of intoxicating elements and substances. Due to the microorganisms' action, the oxygen concentration will decrease while the carbon dioxide increases, and other effects such as the decrease of the apparent density may also appear. All these negative effects call for the need of stabilizing the organic matter through composting.

Coffee grounds is very rich in organic matter and fertilizer, and is specially indicated for agriculture, fruit farming, landscape designing and large green areas.

This product is a high quality and economical alternative to the organic amends available nowadays at the market.

composition

Coffee grounds is a product obtained during the production of soluble coffee in the phase of the liquid extraction of the coffee through pressure and temperature. It is, therefore, a 100% vegetal product from coffee seeds, with a high potential of humic efficiency.

Its high organic matter content (>99% s.m.s) improves the soil structure and water retention capacity, as well as its cation exchange capacity, an essential property in the dynamics of the soil-plant nutrients exchange.

It is noteworthy the high humic fraction (around 22%) of **ORGANIC ENERVIT**, out of which 12.7% belong to humic acids. The exact properties of this amendments' composition are shown in the table below.

PARAMETER	UNIT	VALUE
ORGANIC MATTER	% s.m.s.	>95
TOTAL HUMIC EXTRACT	mS/cm	10-20
HUMIC ACIDS	%	7-12
FULVIC ACIDS	%	3-6
C/N RELATION	-	20-30
AH/AF RELATION	-	1.38

The value of the carbon/nitrogen relation shows that the product contains a large amount of well-moisturized organic matter.

Coffee grounds improves the fertility and structure of the soil to which its added, compacting the sandy ones and segregating clay ones. Moreover:

- Increases water retention capacity
- Activates microbiotic flora
- Improves nutrient absorption, specially phosphor and micronutrients
- Increases chemical fertilizers efficiency

Its vegetal origin provides it with stability, maintaining its properties over long periods. Its conductivity is low, making null the risk of toxicity by sodium or chloride.

All these properties makes COFFEE GROUNDS fit all the strict demands of the Registro de Fertilizantes, classifying as a humic organic amend.

The detailed properties of this material are shown in the table below.

PARAMETER	UNIT	VALUE
MAXIMUM HUMIDITY	% m/m	35-45
EC	dS/m	0.11-0.25
pH	-	5-6.5
TOTAL NITROGEN	% s.m.s.	1.8-2.4
ORGANIC NITROGEN	% s.m.s.	1.6-2.4
AMONIAICAL NITROGEN	% s.m.s.	0.05-0.07
ASSIMILABLE PHOSPHOR	% s.m.s.	<0.3
SOLUBLE POTASSIUM	% P ₂ O ₅	<0.3
TOTAL MAGNESIUM	% K ₂ O	0.8-1.2
HEAVY METALS	% s.m.s.	A TYPE
SALMONELLA	-	NONE
E. COLI	NMP/g	<10
GRANULOMETRY	-	<10 mm (90% of the particles)

Its nitrogen richness stands out, and as the nitrogen has an organic origin it is released slowly, optimizing the plants' absorption and representing a saving in fertilizer.

properties

Coffee grounds is a material served in bulk, grounded so that a fine granulometry, yet not dusty, product is obtained. This facilitates its transport and usage, even through pneumatic systems.

The whole production process, as well as the final product, undergoes strict quality controls with the aim of guaranteeing both the clients' satisfaction and a deep respect for the environment in all our activities.

format, application and doses

COFFE GROUNDS is used as an organic soil amendment. It must be applied by mixing it with the soil where the farming will take place.

The doses is of 15-30 tones/ha of farming area. The product should be spread evenly, and up to a depth of about 15-20cm. 3-5 weeks after its application farming can start.

The recommended doses for the different types of crops are detailed in the table below.

SOIL	Dose (Tm/ha) *
Rich in organic matter	15-20
Poor in organic matter	30
Frank soils	25
Very Sandy	30
High clay percentatge	30

*Dose calculated for 20cm dept dose. For deeper applications, the dose must be increased proportionally.

Our Technical Department will help you with the calculation of the real need of organic matter of your farming, as well as with the designing of an enrichment program.



recommended uses

We recommend **COFFE GROUNDS** for a wide range of applications, amongst which stand out the following:

- Close to communication lines slopes' revegetation. Recovering of bad quality soils.
- Extensive agriculture, such as cereals. It's a quality alternative to the traditional amendments.
- Forest, fruit and ornamental flowers farming: an application before or during the farming is recommended for long duration cultivations.
- Restoring degraded spaces: this product is ideal to recover industrial degraded lands.
- Agriculture, flower farming and other intensive exploitations that require an annual organic matter amendment.
- Soil decontamination
- Thanks to its acidic pH, it's a suitable material for gardening and substrate use.

COFFE GROUNDS is registered in the **Registro de Fertilizantes** according to the **Real Decreto 8/2005**, with number **F0001465/2020**