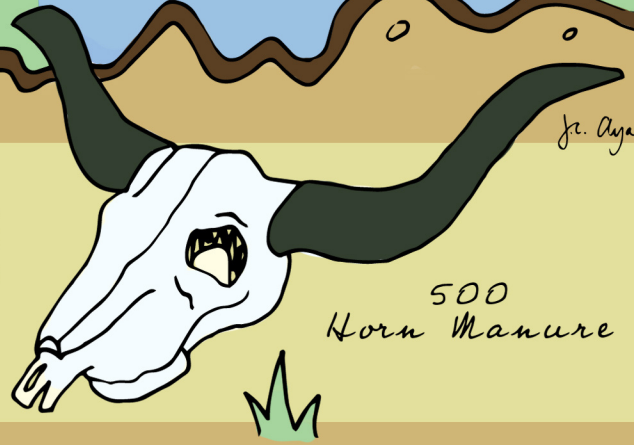


# BI DYNAMIC

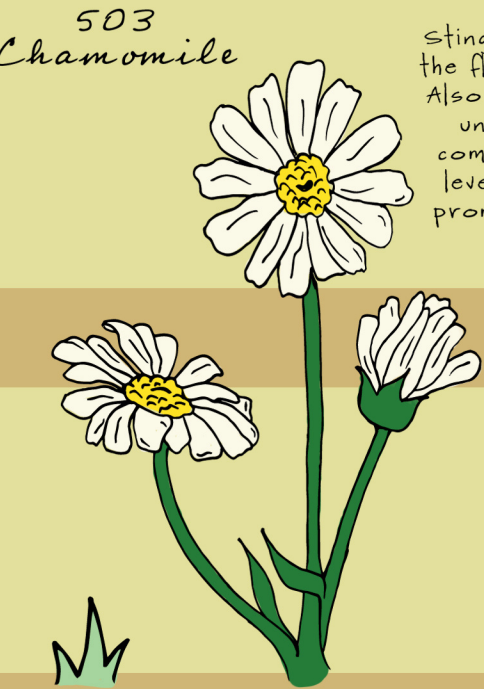
Core Agricultural Preparations

Jr. Ayala

Horn manure preparation has numerous benefits to the land. Among them, promoting microbial life & the formation of humus, while acting on the soil & root growth. Undamaged and well-formed horns are collected from cows that have calved at least once. They are filled with clean dung from lactating cows and buried in earthen pits for 4 to 6 months. The dried, cleared manure is then diluted and sprayed on the soil at the beginning and end of the growing season. This improved soil structure allows for better water & nutrient retention.



Oak bark collected from the trunk of a living tree is finely crushed and lightly moistened with water. This mixture is placed into the skull of a domestic animal, and then placed into a barrel with a closable drain near the bottom. Buried and excavated at the same time as horn manure, it can be integrated into compost piles & slurries. This high calcium treatment increases resistance to disease and fungal attacks.



Stinging nettle leaves are harvested at the beginning of the flowering season and put into a vessel for blanching. Also buried at the same time as horn manure, they are unearthed 12 months later. The leaves are used in compost piles or steeped in manure. They have high levels of nitrogen, phosphorus & iron that, in turn, promote composting & the formation of chlorophyll in plants.

Chamomile flowers are high in calcium, which promotes cell wall development and nitrogen absorption. They also naturally provide sulfur, which promotes the enzyme activity that improves root production. To harness these benefits, freshly wilted (or slightly moistened) flowers are placed in a long piece of cow intestine. This bladder is hung in a sunny place for several months before they are buried in the soil for 6 months. Chamomile flowers are also placed in the ground at the same time as horn manure, and used in the same manner as stinging nettle.

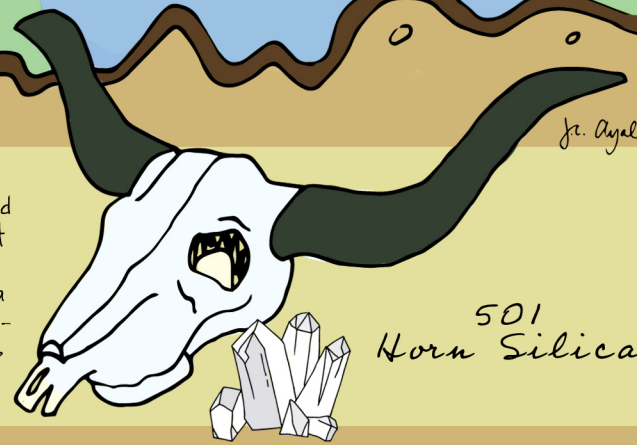
# BIODYNAMIC



Core Agricultural Preparations

Jr. Ayala

Made to compliment horn manure, pure crystalline quartz (SiO<sub>2</sub>) is ground into a flour and then turned into a paste. A clean horn is filled and kept in a pit for 6 months. Stored in a space to capture the morning sun, Silica is used several times a year during vine growth period. Silica has a variety of influences on plants: it helps with metabolism, growth & maturation, as well as increasing fruit storage and improving flavor. After this treatment, plants are more resilient.



501 Horn Silica

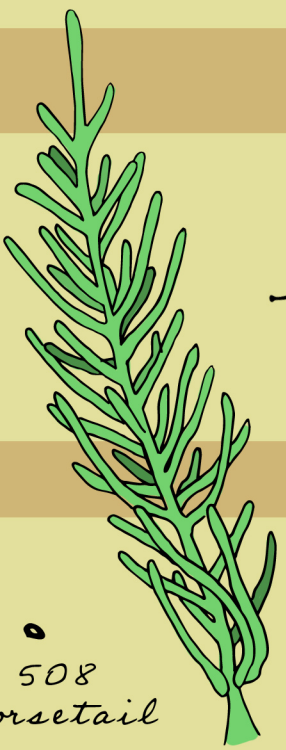
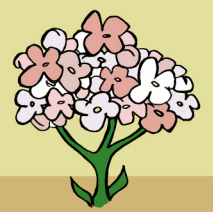


502 Yarrow

Yarrow flowers are stuffed into the stag bladder of a red deer before being suspended in a sunny spot for several months. It is then buried. Yarrow primarily promotes decomposition in compost, but also has a high concentration of sulfur, potassium, copper, phosphates, nitrates & potash.

Harvested in the morning of a sunny day, Valerian is used to protect and warm compost piles. Several methods exist to extract liquid from the pulp of the flower, which contains high levels of phosphorus. To use, the extract is poured or sprayed directly onto compost.

507 Valerian



508 Horsetail



506 Dandelion

Dandelions are mineral powerhouses! They have high levels of iron, calcium, phosphorus, magnesium, copper, silica, & potassium. The silica specifically builds strong cell walls and activates light influences on the soil. Fresh (but wilted) dandelion flowers are harvested in the morning before they close from the heat of the day. A Mesentary or Greater Omentum of a cow is used to form a ball encapsulating the flowers. They are dried & buried, and used similarly to Valerian.

Equisetum Arvense, or horsetail, has high amounts of silica and is used to prevent the various effects of fungal disease. To create an application, the horsetail is dried and then ground into a fine powder. It is soaked in clean water for a day, then boiled & simmered for an hour. After cooling, it is diluted with water and stirred rhythmically for 20 minutes. The rhythmic stirring creates a vortex, and is a common technique in Biodynamic practices. The horsetail serum is then sprayed directly onto plants.

