

Guidelines 1: Biodynamic Spray Preparations

Horn Manure (500)

Upon arrival the Horn Manure preparation should be removed from its polythene packaging and used as soon as possible.

Storage

If it needs to be kept longer than one week it should be carefully stored in a container with a loose fitting lid. Unglazed earthenware pots are best but glass jars or ceramic containers will also do. The pots should then be placed, surrounded on all sides with peat into an untreated wooden box. The box should be stored under cover in a cool, dark and frost-free place away from the injurious influences of microwave radiation (phone masts etc.) and other potentially toxic influences.

When stored in this way horn manure will maintain its vitality for a year or more.

Uses

Horn manure is used to stimulate soil vitality and encourage plants to connect with the specific conditions of their growing site. It also encourages deeper rooting systems, increased earthworm activity and a better retention of soil moisture. It is an ingredient in root dips (used in transplanting), in tree paste (to feed fruit trees) and can be used as a seed bath treatment.

One unit of horn manure is sufficient to treat approximately one acre. It needs to be dissolved in about 2-3 gallons (10-15 litres) of water, stirred vigorously for one hour and sprayed out in droplets on to the garden or field. The exact proportion of preparation to water is not crucial and smaller amounts can be used. On larger areas the amount of preparation in relation to the amount of water used can be reduced by up to a third.

When to use

Horn manure is always applied in the late afternoon or early evening to coincide with the in-breathing cycle of the day. Mild overcast days should be chosen where possible. Heavy rain, high winds and frosty weather should be avoided and during dry sunny spells spraying

should be delayed until close to sunset. It can be used several times during the year. It can be applied to all areas in February and March and also in October or November. It is recommended wherever crops have been sown or transplanted and can be used on grassland after cutting or grazing. Spraying an area three times in succession, with the same stirring, has proved beneficial as have repeated applications during times of drought.

Stirring Vessel

The vessel for stirring must be clean and free from all forms of contamination. A bucket may be used or for larger quantities a barrel or other suitable container. The container needs to be cylindrical in shape and have straight sides. It can be made from a variety of materials. Earthenware or wooden containers are best but copper, stainless steel or enamelled buckets may also be used. Galvanised buckets are not recommended. If plastic has to be used it needs to be of the hard dense type.

Water

Only the best available water should be used. Tap and well water need to stand for a few days before being used. Occasional vigorous stirrings during this time will rid mains water of its chlorine content. Rain water can also be used but if collected from roofs care should be taken to avoid the first (usually polluted) storm waters. Water from tiled roofs is preferable.

The water should be heated until it is hand warm (35-38 degrees centigrade) over a wood fire or using a boiler. Where this is impractical, boiling water may be added. Warmed water is important since warmth brings more activity to living processes.

Stirring

When the vessel is ready, the preparation can be taken and gently rubbed between thumb and finger in the water to help it dissolve. If a bucket is chosen, stirring may be done with the

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bare hand or with a stout stick. Where stirring is done in a barrel an oar may be used or a pole with a bundle of sticks attached to it in the manner of a birch broom. A further refinement is to attach the pole to an overhead beam.

The method of stirring is important. Stir the water vigorously until a deep crater is formed in the rotating liquid. Then reverse the direction of stirring to create a seething chaotic turbulence before gradually forming a crater in the other direction. Once this is achieved the direction of stirring should again be reversed. This rhythmic process should be continued for an hour. After one full hour the liquid is allowed to settle before being poured through a sieve into a backpack or machine sprayer.

Spraying out

On a garden scale the stirred preparation can be applied with a simple bucket and brush. A hand brush made from natural fibres is best. This allows droplets of water to be sprayed out over the ground. The technique is to walk briskly over the garden or field while rhythmically spraying once to the right and once to the left so as to lightly cover the ground with water droplets. Where knapsack or tractor sprayers are used it is important that nozzles are set to allow coarse droplets to be formed. There is no need for blanket coverage since each water droplet radiates its effect over a wider area.

Horn Silica (501)

On arrival the bag containing Horn Silica should be opened and kept on a light and sunny window sill until it is used. A small glass jar with a screw top lid is a suitable storage vessel.

Horn Silica is used during the growing season to enhance the qualities of growth and maturation. It helps to stabilise and balance plant metabolism and also increases nutritive value. The keeping quality of vegetables is improved as is sugar and dry matter content. In contrast to Horn Manure which is applied generally to the soil, Horn Silica is used in a much more specific way to enhance

the quality of crops at particular moments in their growth cycle. It is first applied when plants are growing strongly in their vegetative phase and then later when the crop begins to ripen. Its capacity for improving such qualities as dry matter content, sugar and ripeness means that it is applied mainly to the upper part of the plant. It enhances light qualities. The general rule is to spray when that part of the plant begins to form which will later be harvested - the swelling roots, fruits or cabbage heads etc.

When to Use

Horn Silica is usually applied in the early morning as close to sunrise as possible when the dew still lies on the ground. Where possible a day should be chosen for the morning application which is set to being sunny. This will help the light influence to take full effect. If however it is sprayed too late in the day when the sun is already high in the sky, there is a danger of the plants being burned. It can be applied all round the year according to particular plant requirements although the main and more general application would take place in late spring. Where it is used to enhance the final stage of ripening it can also be applied in the afternoon especially on root crops.

Stirring and Spraying

Only very small quantities of Horn Silica are used. One unit is dissolved in 2-3 gallons (10-15 litres) of water and sprayed across one acre. Stirring proceeds as with Horn manure. To spray out a knapsack sprayer is needed with very fine nozzles. It is sprayed as a fine mist over the plants. Its effect is more on the plants and the atmosphere around them than on the soil.

Care Needed!

Horn Silica has an upward-drawing effect which if not properly balanced could be harmful.

Only use Horn Silica where Horn Manure has been previously applied!

Bernard Jarman May 2011