

Making BD 500

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More and more BD farmers and gardeners want to make their own BD 500. In Germany all Certified Bio-Dynamic farmers are encouraged to make their own BD Preparations as an integral part of their BD management. The following article is a detailed guideline, drawn from experienced BD Preparation makers on how to make the best quality 500 possible.

The Cow Horn

Use cow horns which can be distinguished from bull horn by their annular calving rings and solid tips. Fresh horns with their cores can be buried under a pile of sawdust or soil or hay mulch for about 6 weeks when the core will come loose. Alternatively, they can be soaked in water for a similar length of time. The horns are now ready for use and should be kept in hessian bags in a cool, dry place until the burial time. You can wash the horns before and after each use. In the Agriculture Course Steiner says "...you ought to be able to use the horns three or four times. After that, they probably won't work as well. It might be possible to use them for another year if you store them in the cow barn for a while after they've been used three or four times." In New Zealand, where there is some difficulty obtaining horns, good horns have been used until they start to disintegrate which may take 5 or more years. It seems that a critical mass of horns is necessary to make good 500 eg a minimum of 8 horns. This will make enough 500 for a large home garden for several years.

The Cow Manure

The manure must come from healthy lactating cows fed as far as possible on pasture that has been grown bio-dynamically. As the pasture improves with each year of BD management so does the quality of the manure and the resultant 500. Choose your best pasture and lock it up for a month or more before you are making 500. Let in only the lactating cows (no heifers, steers or bulls) the day before you are making 500 and collect the manure in the morning. When collecting the manure, make sure it is free from contamination (sticks, grass, soil, stones) - gloved or bare hand is often more efficient than a shovel for this. It should not be too runny. Cover the manure with a damp hessian bag and keep it in a cool, shady place until it is used, preferably on the same day.

The Pit

The soil chosen for the pit should have been treated with Bio-dynamic preparations, be fertile, well drained and removed from encroaching tree roots. A good vegetable garden soil is ideal. The depth of the pit depends on your depth of topsoil - from 300 mms to 1 meter in very deep soils has produced excellent 500. A shallower pit is required where the water table is high or where there is a clay sub-soil.

In the case of shallow pits it is advisable to build up a mound in order to cover the horns with half a metre of soil. The shape of the pit is your choice, round, square or rectangular. Shallower pits are only suitable for one or two layers of horns, each layer covered by a thin film of topsoil. Deeper pits can have up to five layers of horns. If the soil is very dry, thoroughly water the pit after it is dug and put the sprinkler on it when the horns have been buried until it is quite moist but not sodden.

The Method

BD 500 should be buried in late March to late May and retrieved from late September until late November. The shorter the winter, the shorter the time required for the manure to turn. There are various ways to fill the horns. A group of people sitting in a circle around a raised container of manure provides for a pleasant working atmosphere and invariably interesting conversation. Manure is handled either with bare or gloved hands or a stainless steel spoon. The horn is filled and tapped on its end to make sure it is properly filled. A piece of stick can be used to ram the manure into the tip of the horn. Ingenious farmers have worked out many mechanical inventions for more efficient horn filling, one of the best being a water powered sausage making machine.

Once filled the horns are gently carried to the pit and are usually placed with their open ends facing down or horizontally. The pattern of placement depends on you. Each layer of horns is gently covered with 30 - 60 mms of loose topsoil so that the horns are completely surrounded by soil. The top layer of horns is then buried with at least 300 mms of topsoil. If the soil is very dry with a dry winter expected the pit can then be thoroughly watered and a layer of mulch at least 300 mms thick can be placed on top to keep the moisture in. If mulch is not used to cover the pit, it must be kept weed free for the time the horns are buried. The pit should be watered when you water your vegetable garden if there is insufficient rain. Make sure the location of the pit is well marked, with stakes or by mulching it.

Earth worms may be a problem and raid the manure in the horns in the early spring. In sub-tropical and tropical areas check the horns by digging up a few horns when they have been buried for 4 months to check whether the manure has turned from green smelly cow manure into earth smelling brown to black 500. If worms are a problem you can distract them by putting a couple of barrow loads of fresh compost near the pit. In temperate regions the manure generally takes up to 6 months to turn to 500

Retrieving 500

To retrieve the 500, dig down to the first layer of horns and gently prise them out making sure the 500 doesn't fall out. Brush as much soil off the outside of the horn as possible and pack them in a box with the open ends up. When full this box can be taken to a shady spot where other workers can extract the 500. If the 500 has turned well it should have shrunk away from the sides of the horn slightly and should be easy to knock out. It should have a pleasant earthy odour. Before extracting the 500 from the horn, make sure that any dirt is removed from the open throat of the cow horn. Put the 500 into a clean bucket or other container covered at all times with a damp sack and transfer it to its permanent storage place as soon as possible. It is important that the 500 doesn't dry out as it loses its vitality if exposed to the sun's ultraviolet rays or a drying wind. Discard any green smelly horns (there are usually a couple of horns that don't turn in each burial).

Storing of BD 500

Store the 500 in a stoneware, glazed earthenware, glass or enamelled receptacle covered with a loose fitting lid and surrounded by at least 100 mls of peat moss. This can be achieved by burying your receptacle filled with 500 or preparations 502 - 506 in a wooden box filled with peat moss, or by making a special lid for the box filled with 100 mls of peat moss, or by covering your loose lidded 500 receptacle within a larger peat filled box with a pillow containing 100 ml thickness of peat moss. See BD Resource Manual.

Small pieces of 500 from individual horns can be kneaded together into larger balls before being put into their final storage receptacle. Over the next 3 to 4 months the appearance of the 500 continues to change and it settles down into one dark brown, soft feeling homogeneous mass, which should maintain a satisfactory moisture level if stored correctly. If it is getting dry dampen it and knead it with a little rain water, if too wet, gently aerate it with a garden fork. The 500 should maintain its sweet earthy smell. Often red manure worms will work through the 500 changing its texture to that of worm castings. Sometimes these worms will become too abundant and should be thinned out if you are planning on storing the 500 for more than a year before use or the 500 will turn into wet soggy worm castings at the bottom and light dry fibrous material at the top of the receptacle. Good 500 should store for up to 3 years without losing its vitality.

BD 500 can be used fresh from the horns, but is most frequently allowed to stabilise in storage (3 to 4 months) before it is used, hence 500 retrieved in spring is often used for the autumn spraying.

References : *Grasp the Nettle* - Peter Proctor (Available from BDFGAA Office)

Agriculture - Rudolf Steiner

Applied Bio-Dynamics - Journal of the Josephine Porter Institute (USA)

Terry Forman - BDFGAA National Field Advisor