

Coating media

biodynamic preparations

Which materials are suitable for storage?

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In the past, the question has repeatedly arisen in biodynamic practice, especially outside Europe, as to whether only the peat recommended by Rudolf Steiner in the "Agricultural Course" is suitable for storing biodynamic preparations. In order to be able to answer this question, the characteristics of peat must be taken into account.

What is the special quality of the peat that makes it so suitable for storage? On the one hand, Steiner describes the delimiting, skin-forming, enveloping effect of peat at various points in the agricultural course: in the production of the nettle preparation, where the peat is used instead

of an animal casing; when covering the

What characterizes peat?

If you look at the peat fiber itself, it is relatively difficult to convert and therefore difficult to use.

Compost or manure, where clay or peat should be used and finally when storing the preparations in a box surrounded by peat. Here his task would be to keep the forces in the preparations concentrated. R. Steiner describes another property of the peat fiber as a textile fiber: Here it offers the possibility of protecting the human organism from the effects of electro-magnetic influences. However, for this protective function, the peat fiber still needs to be specially treated.

Bench processes can be reintegrated. The gardener loves this property when he uses the peat to stretch nutrient-rich soil. If you look at the origin of peat, you will find this preserving, preserving property in the creation of a moor as an essential educational gesture: the peat-forming plants gradually form a dense carpet of their plant remains do not decay like other herbaceous plants, but are preserved in the watery environment of the moor. This matted carpet becomes thicker over long periods of time and grows into the raised moor, which arches slightly towards the sky like a water-filled bubble. The comparison of an "eye in the landscape" was often used for this purpose.

But there is also the other side of the bog: The most well-known phenomenon is the formation of bog corpses - an extreme form of mummification of organic life over thousands of years. Certainly: here the form of an originally living creature is preserved over thousands of years, but this mummy can no longer be brought to life. In this context, it is interesting to read that during a visit to a nursery near Ulm, Steiner said that the peat had no place on the young plants

Fig. 1:

Coconut, the fiber layer has been removed on one side (left)

Fig. 2:

Bark of a young cork oak (right)



because it has a negative influence on the development of plants. Does this property of peat, which is alien to life, have no influence on the effectiveness of the preparations?

Look for alternatives

The search wasn't easy at first, as no other enveloping medium that I know of combines these properties that characterize peat. And besides, how are we supposed to check this? Since the practical question that was posed to us required a quick initial answer, we checked the suggested options: coconut fiber, rice husks and compost.

Additional substances were added in the course of the work. The research method chosen for testing the substrates and preparations was research using visual force perception, a direct research method for life forces founded by Dorian Schmidt and now often used for development questions in biodynamics. Its advantage over other methods lies in the possibility of a very differentiated description of the effectiveness of the substances from the beginning through the entire course of an experiment, not only after years on the finished preparation.

Which alternatives have now been examined?

On the one hand, there were the covering substances of various fruits, such as: B. the rice or spelled husk, a silica-rich cover from the seed area. Apart from its protective function for the seeds, nothing reminds us of peat and its properties. If you take the image force studies into account, this is what happens



The effect of the glumes remains entirely in the realm of warmth and light: the storage space surrounded by glumes is illuminated as if by lances of light, suppressing and drying out any vitality.

Another medium that is particularly popular as an alternative in tropical regions is coconut fiber. This also comes from the fruit area. This is the outermost seed coat that surrounds the hard-shelled nut kernel (see Fig. 1).

This is an extremely hard, woody plant fiber that can permanently resist any rotting influences. Right from the first encounter with the formative force method, we were surprised by the quality properties of the coconut fiber:

Although it also formed a thermal envelope, its effect on life processes was completely different: On the one hand, it concentrated life forces inwards, but on the other hand it was able to expand on the other hand, also allowing this life to breathe outwards without it exuding itself. Not least because of this apparent contradiction

I remembered my tropical experiences:

This extreme liveliness is clear from the coconut, the seed of the coconut palm: If it falls into the sea, it can float in it for months until it is washed ashore again. Then, using its own seed substance and power, it sends the radicle many meters deep through the soil near the bank, which is saturated with salt water, until it encounters fresh water in order to finally create a new palm tree. From these observations it made sense to examine the coconut fiber more closely.

Another covering substance is the cork bark (Fig. 2) of the Mediterranean cork oak, which is also used as insulation material in house construction.

Here you encounter another quality of thermal envelope that appears deceptively similar to water: a heat that flows up and down and therefore offers little enveloping protection.

Long-term storage test

Since 2010, horn manure preparation has been used in a long-term test with the aforementioned casing materials.

Fig. 3:

Storage vessels for the experiment.
Left: Filling with peat/coconut fiber, right the empty control

ur research

stored the same. Studies have now been carried out with the preparation several times. The preparations were stored in wooden boxes in a glass vessel so that they were surrounded on all sides by the coating media (see Fig. 3). We always store the horn manure preparation moist, otherwise it cannot develop its effect during the stirring process. The investigation method in this experiment has so far been limited to the formative forces described above

research. By the way, there was no external change in the differently stored preparations. The covering materials used for storage (see above), the stored preparations themselves and the effect of the stirred preparation in the field were examined.

For the latter experiment, six preparations were stirred by hand at the same time in 1 liter of water using a stirrer (Fig. 4). The following effects of the differently stored preparations, which were examined using the perception of formative forces, can be summarized:

- Control (without preparation): Life in the soil area is bound to the mineral sphere; This is counteracted by heat-light radiation in the air above the ground; There is largely no mediation between the two. The basic mood is therefore rather sober.

- Preparation stored without shielding: The sphere of life appears weak, only slightly strengthened compared to control. After more than a year of storage, not much of the effect of the preparation remains.

- Preparation stored in peat: The life of the soil intensifies and penetrates into the air space near the ground; Above it, an opening to the cosmic forces can be experienced, but a certain distance remains noticeable between above and below.

- Preparation stored in coconut fiber: cosmos and earth move closer together: a heat shell flows in from above in a condensing manner, heat of life from below; The previously described sphere of life in the area of the ground is additionally warmed and acquires an even more intense connecting quality to the cosmic forces.

The effect of the preparation appears to be further strengthened.

- Preparation stored in peat-coconut fiber: The heat in the air area is harmoniously balanced and calmed down; the warmed and internally powerful sphere of life expands to the ground.

This variant showed the most intense, harmonically balanced horn effect.

- Preparation stored in spelled husk: Everything appears to be constricted by pressure from the outside; Life stream flowing downwards into the ground: appearing as if squeezed out; Cosmos and earth only seem to be connected by a thin thread.

The life sphere close to the ground can develop little.

- Preparation stored in cork: Compared to coconut fiber, the heat in the air area has an oppressive effect; Heat flowing downwards into the floor area can be experienced; Overall, however, the effect of horn manure is relatively weak.

If you combine the results, the weighting of the suitability of the different covering materials is as follows:

Way:

The most suitable is the peat-coir-coir combination, followed by the pure coconut fiber variant.

The (traditional) pure peat variant is also suitable, but not optimal. The cork proved to be unsuitable and the husk unsuitable.

The reader may now ask why Steiner recommended peat as the suitable storage medium for the preparations in the agricultural course? The first answer is that the direction of effect determined via the perception of visual forces, as stated by Steiner, is simply correct. Peat provides protection and retains vital forces. The fact that this happens to such an extent that the preparation is affected is a fact that certainly affects life

Fig. 4:

Stirring device for hand stirring six different ones

preparations



would have been corrected if it had been observed by Steiner or the farmers. This observation did not occur in the early days of biodynamic farming. Steiner was not taken seriously enough in the statement he often made that the spiritual scientific observations he made had to be tested in practice, since this was the only way to be sure that truths found spiritually were also in practice. Have physical existence. All too often, Steiner himself made small corrections in order to make his findings effective in the context of earthly life. And finally, Steiner talked about storing the excavated horns in peat, not just their contents!

Recommendation for practice

From the previous investigations, the following emerges for optimal storage of the preparations: In a double-walled box, the outer cavity is filled with dry white peat and the inner cavity is firmly pressed with dry coconut fiber (see Fig. 5). Do the same with the lid and base.

The individual preparations are also shielded from each other with coconut fiber. The layer thickness is 3 to 5 cm depending on the size of the box. If peat is not available, you can only work with coconut fiber. Then an earthenware vessel should serve as the outer shell. The box is placed in a cool and dry place.

Storage of stirred preparation

According to the information in the "Agricultural Information", stirred preparation should



chen course" should be delivered as soon as possible. Steiner did not specify how long this period was exactly. The original practice was to inject the preparation on the same day. Over time, this period became shorter and shorter until it was finally said that the preparation would only last for two hours. A winemaker once characterized the situation as follows: I can't even stir before breakfast because after breakfast the preparation is already ineffective!

Since this short period of time became more and more of an obstacle to the preparation work, we also carried out experiments on the shelf life of the stirred horn manure preparation: According to the results of the visual force perception, stirred horn manure preparation can also be stored for a longer period of time, from days to several weeks if stored in coconut fiber. To do this, however, it must be sieved so that fermentation is always available, especially

especially if you often need small quantities, such as: B. in vegetable production. For soil cultivation, it is also a good idea to always have mixed preparation on hand so that horn manure can be applied at the same time as mechanical cultivation. |

Sources of supply

Where can you get the materials? The white peat can be purchased from specialist garden shops. Care must be taken to ensure that it is not fertilized.

The coconut fiber must also be untreated, which many sources e.g. B. from the eco-building material trade (due to fire protection impregnation) or excludes fiber stabilized with latex. However, natural coconut fiber can be obtained from the research ring. Research Ring for Biological-Dynamic Economy eV, Brandschneise 5, 64295 Darmstadt, Tel: 06155-84210, Fax: 06155-84 21 25, www.forschungsring.de |

Fig. 5:
Storage box for horn manure preparation in the research ring: The earthenware vessel (made from a double layer of Floor tiles) is from Surrounded by coconut fiber and peat, both layers separated by a thin hardboard

Sources:

Steiner, R. (1924): Humanities basics for the prosperity of agriculture. GA 327. Dornach, 1979; P. 167 • Schmidt, D. (2010): Life Forces – Formative Forces. Methodological principles for researching living things. Stuttgart