Application method of organic liquid fertilizer

So far, the fertilization of soil activators usually still remains in the form of compost. From a physical point of view, if 1 ton of compost (with an estimated specific gravity of approximately 0.60) is applied to 1000 square meters (10 a) of soil, only a 1.6mm thick layer can be fertilized on the soil surface. If the tillage layer is up to 15 cm thick, approximately 100 tons of compost need to be applied. Considering the cost and labor, this is completely impractical. Moreover, there is the risk of negative effects on the soil from applying incompletely matured compost. Therefore, the soil active liquid (also known as "organic liquid fertilizer") produced by our company using advanced technology is the simplest and most effective method for soil improvement.

I. Characteristics of Soil Active Liquid and Differences from Traditional Compost

1. Contains a large number of beneficial complex microorganisms

   Soil active liquid contains a large number of beneficial bacteria, yeasts, and photosynthetic bacteria. The microorganisms in the liquid penetrate into the soil and carry out active activities, while also receiving assistance from insects, which can enhance the effect of soil improvement and return to the original repair function of nature. In addition, when the liquid is applied as a top dressing, it can regularly

provide beneficial microbial communities to the soil, preventing soil continuous cropping obstacles caused by the reduction of microorganisms.

2. Liquid fertilizer that can ensure a stable microbial content per unit volume through uniform mixing

   Traditional composting and fermentation are difficult to achieve uniform composting and fermentation effects due to different materials and water contents. However, in soil active liquid, it is easy to achieve microbial uniformity. The liquid is easy to pump and store in tanks, greatly reducing storage space.

3. Contains a large amount of amino acids, making plants and microorganisms more active

   Because crops absorb soil active liquid containing a large amount of amino acids, the energy conversion process in the plant growth process is reduced, allowing more glucose and amino acids to be retained in the crops. Crops containing a large amount of glucose and amino acids maintain a rich sweet taste and deliciousness in quality. In addition, crops containing a large amount of glucose can extend the preservation date of the crops and prevent them from rotting. Amino acids can also act as a food source for microorganisms in the soil, making the soil microorganisms more active and improving the physical properties of the soil.

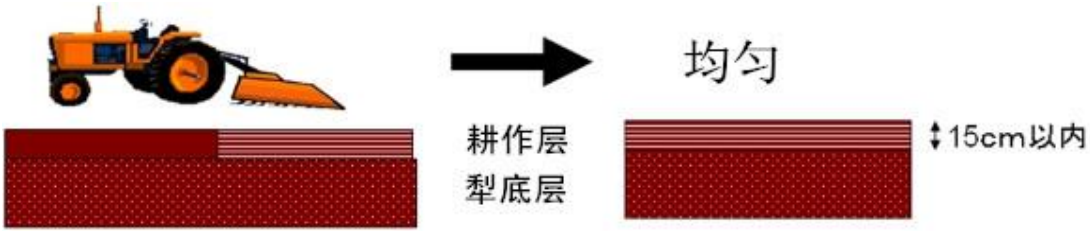
4. Can be used together with compost (organic matter) to promote the complete fermentation of organic matter in the soil

II. Key Points to Promote Soil Vitality

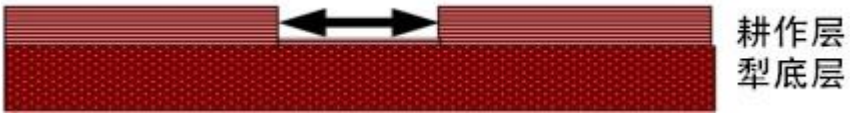
By applying soil active liquid (liquid fertilizer) to exhausted soil, the microbial activity in the soil is stimulated, and the soil is improved to a fertile land with high nutritional value.

1. Plow the field to a depth of 10 cm.

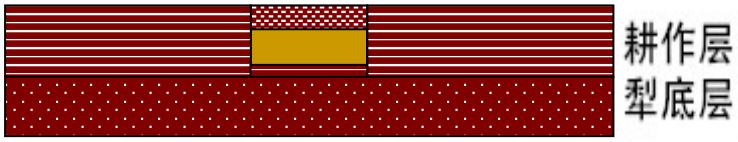
   Do not plow the soil too deep to avoid damaging the plow layer.



2. Prepare for liquid fertilizer application and dig a flat trench.



3. Pour the liquid fertilizer into the trench and fill it with soil.



4. Prepare the soil layer for planting as shown in the figure. The soil can be worked immediately when it is dry, or after a few days when it is

moist. Seeding or transplanting can be done in the planting area.

5. Avoid fertilizing immediately after rain. When the soil contains water, avoid tractor plowing to avoid soil compaction.同样, plowing too deep can also cause soil compaction.

Notice：耕作层-plough layer，犁底层-plow sole，均匀-uniform

III. Key Points for Base Fertilization (Soil Improvement)

1. Fertilization Precautions
2. Apply fertilizer on a sunny day.
3. It works better when used with other organic compost.
4. Prohibit the use of pesticides, disinfectants, and chemical fertilizers.
5. Generally, use 1 to 2 tons per acre, or adjust the amount according to the degree of soil improvement.
6. Choose a farm that does not use pesticides nearby if possible.
7. Generally, adjust the soil to a pH of 6-6.5 for the best results.
8. Fertilization Procedure

   Step 1: Use a pump to evenly spray the soil active liquid on the soil.

   Step 2: After spraying, plow the soil surface without damaging the plow

layer.

Step 3: Measure the pH of the soil in advance to understand the soil condition (using a soil pH meter, etc.).

Step 4: After 2 to 3 days, measure the pH of the soil again to determine if additional soil active liquid is needed.

Step 5: If additional soil active liquid is needed, apply it again according to Step 2.

Step 6: After 2 to 3 days, measure the pH of the soil again. When the pH reaches 6 to 6.5, planting can begin 1 to 2 weeks after fertilization.

Base fertilization of family vegetable gardens

IV. Liquid Fertilizer Application and Improvement (Odor Countermeasures after Fertilization)

Digging trenches, applying liquid fertilizer, and covering with soil.

Ditching → Apply liquid fertilizer → blinding and cultivation

V. Fertilization of Leafy Vegetables and Root Vegetables

1. Method of Using Liquid Fertilizer as Foliar Fertilizer
2. When there are pests on the crops, a 100-fold diluted liquid fertilizer can be sprayed to repel the pests.
3. Even if some leaves are burned, the roots of the crops will not be damaged (the roots are good for regrowth).
4. It is recommended to fertilize in the cooler morning or evening hours.
5. Planting Requirements
6. Early Growth Stage of Crops

   After transplanting, in the early growth stage (from the time the seeds

germinate to when the leaves emerge from the soil), the liquid fertilizer is sprayed at a dilution of approximately 100 times once a week. The dilution ratio may vary depending on the type of crop. To prevent leaf burn, a 100-fold dilution is generally used. This operation is continued until spring.

7. Late Growth Stage of Crops

   After the roots are firmly established and the leaves grow larger, the entire crop can be sprayed with the liquid. Basically, the 100-fold dilution liquid is sprayed once a week. The dilution ratio can be adjusted to 100 times or more depending on the burn situation. In times of more pests, the dilution ratio can be slightly increased.

VI. Rice Cultivation (Japanese Cultivation)

1. Transplanting Stage

   Before plowing, apply 500 L of soil active liquid per acre, diluted 10 times.

   After plowing, apply 60 L of soil active liquid per acre, mixed with water each time water is introduced into the field.

2. Flowering Stage

   When flower buds appear, apply 500 L of soil active liquid per acre at the water intake.

Preferably, 500 L of soil active liquid is diluted 30-50 times and sprayed as a foliar fertilizer 3-5 times. Basically, the best spraying method is selected according to the climate, weather, and water temperature conditions.

3. Harvesting Stage

   After harvesting, apply 3-5 tons of soil active liquid per acre before winter. This is basically the same as the soil improvement method.

   After spraying the liquid fertilizer, wait until the water level is adjusted to the field.

   According to the above method, the soil is improved before plowing.