

- Fertilizers

How to compost on farm

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FARM effluent and manure along with left over materials such as wasted feed, wood chips, rice hulls, fouled bedding materials and tree prunings are all materials that could be used to produce a compost and be recycled back on the farm.



Compost, if it is made correctly will allow you to handle, store, transport and spread organic by-products back to land and recycle high carbon low nitrogen materials back to the land. This is without tying up as much soil nitrogen while they are going through biological processes, producing a safe, stable soil amendment with slow release nutrients in organic forms, and finally to improve soil fertility, soil structure and general soil health.

If you choose on-farm composting, then you need to plan to do the process properly which requires the use of costly, specialised equipment, an area of land set aside for compost making and storage of materials, and the time to perform the tasks required.

Additionally, you need to consider that the end product will have a lower volume, lower carbon and nitrogen than the original materials.

Composting is a biological process, carried out by microorganisms that are naturally present in the environment, therefore no special inoculants are required.

What you need to provide is organic materials in the right proportions, with moisture, and the microbes will do the rest.

Understanding the conditions required by composting microbes is important for successful composting.

Microorganisms have three basic needs and when these are provided, the composting process will proceed, and the mix will heat up as required.

These needs are oxygen, adequate moisture and suitable food supply.

If you provide the above conditions the composting process will begin, and the pile of material will start heating up.

This part of the process is called the thermophilic stage where intensive decomposition of organic residues is occurring, reaching temperatures of between 45C and 65C.

If you are looking at making compost on a larger scale, then it would be worth getting samples of the material tested for their total carbon and total nitrogen content, plus moisture levels at a reputable laboratory.

This will enable accurate mixing of materials to give the best environment for their microbial breakdown.

If you are considering bringing organic material onto the farm to assist with composting, or composting spoiled hay refer to the information notes 'compost and farm biosecurity' and 'composting spoiled hay' at <https://agriculture.vic.gov.au/>.