



Post-fire soil recovery

The following information was gathered from Nicole Masters, agroecologist, and her team at Integrity Soils. There is a detailed webinar recorded here: <https://youtu.be/uKAbDbGIV8s>

If your land has been burnt by fire, you may face problems such as erosion of your precious topsoil, hydrophobic soil, weed incursions, and soil fertility issues. These problems can be addressed in a large part with a simple biological treatment, presented here.

What happens to soil in a fire

Many of the impacts will depend on the intensity of the burn. The greatest impact is on the top 5 cm of soil. It can reduce productivity for years, even decades.

- Some nutrients can be lost or locked up immediately, while others such as nitrogen, phosphorus, sulphur and boron can show post-fire spikes but longer-term drop offs.
- Water-repellent waxy coatings commonly form, making it hard for your soil to rehydrate when it eventually rains, and making you vulnerable to erosion.
- There is loss of beneficial soil microbes, particularly fungi and free-living nitrogen cyclers. This breaks the structure of the soil, makes it harder for desirable plants to establish, and makes it harder for plants to access proper nutrition from the soil and stay healthy, impacting production. Conditions are right for early-succession weeds.

How to remediate your soil

All of these problems can be overcome with the promotion of healthy soil's normal balanced and diverse microbiology. To do this we add food for fungi and bacteria (prebiotics) and diverse living microbes with their chemical biological signals (probiotics). The easiest application for most people will be a liquid, or a seed inoculation if re-seeding.

Ingredient	L/ha
Fish hydrolysate*	7
Molasses*	1
Liquid lime* (DIY with superfine lime + apple cider vinegar)	10
Humic acid*	1
Fungally dominant worm cast extract^/ high quality compost tea	5

*Available at some rural supply stores, including Norco Taree

^ See offer below

Mix together with water and apply at the emergence of first green leaves post-fire, and/or with the first rains. Higher application rates (2-4x) can be used.

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Special offer: Get 25% off Biocast+, your locally produced worm cast extract using the code FIRERECOVERY25 at the checkout on our website www.biocast.com.au