



GREAT LAKE TAUPŌ
Taupō District Council

Volcanic Ash Advice: Rural

What is Volcanic Ash?

Volcanic ash consists of tiny jagged pieces of rock and glass, and is highly abrasive, mildly corrosive, and conducts electricity when wet.

Effects on agriculture

The effect on pastures and livestock will vary significantly depending on the ash type, consistency and depth of ash deposited, chemical nature of ash and poisonous aerosols attached to the ash, amount of rainfall immediately following any ashfall, wind direction, metabolic and nutritional demands of the livestock at the time, age of livestock, and pasture length.

Ashfalls of less than 5mm can result in impacts for agricultural enterprises if the ash is high in chemicals such as fluorine.

Impacts include:

- Contamination to water supply and pastures leading to reduced availability to feed
- Increased maintenance costs, and rust to vehicles and machinery
- Adverse effects to livestock health
- Reduced crop yields and quality.

Livestock

The main issue for livestock is likely to be contamination of the water supply leading to livestock not eating/drinking. If possible move livestock close to the homestead to allow better access to supplementary feed and water.

Further physical impacts could include:

- Eye and skin irritations
- Respiratory distress
- Abrasion to teeth and hooves
- Contamination of fleeces
- Blockages to the gastrointestinal tract due to quantities of ash consumed.

Horticulture

The impact of ash showers on horticulture can be considerable with both physical and chemical effects. Even light rates of ash at critical times can reduce crop performance significantly. In addition, light ashfalls can affect either predator pests to increase pest management problems, or the dust can affect bees, reducing crop pollination.

Ash should be removed from the base of plants to prevent disease or death. Options for crops include:

- Using overhead irrigation, shaking crops and/or using air blowers
- Mixing the ash into the soil can be suited to annual crops
- Defoliated trees will possibly drop fruit, but if only partially defoliated thinning should be considered.

Forestry

The impact of volcanic activity on plantation forestry can also be significant from burial, to breakage and fire (from lightning strikes). Infrastructure can also be damaged, complicating the response to the direct effects on the forest. For example, if waterways and water sources are contaminated by ash, then pumping systems to control forest fires may not be effective.

Recommended Actions

- If possible conserve water for human consumption. If there is ash in your water, let it settle and then treat the clear water with bleach (1/2 teaspoon per 10 litres).
- Close water supply intakes, and disconnect drainpipes/downspouts from gutters to stop drains clogging. Allow ash and water to empty from gutters onto the ground.
- Listen to your local radio for information on the eruption and clean-up.

For further information see the Ministry of Primary Industries website: www.mpi.govt.nz