

Best Practice Guideline: farming

preamble

Farming is a primary industry based on non-consumptive utilisation of natural resources. It is essential that the ecological functioning of these resources is not entirely transformed through negative impacts. Work with Nature – the more removed your farming system is from Nature the higher the costs involved. Responsible and rewarding farming is based on production at the lowest financial and environmental cost.

This BPG is not intended as a definitive guide to agriculture and nor should it be regarded as a plan for a farming operation. It is a set of guidelines to enable the long-term use of natural resources within the parameters prescribed by the ecosystem so as to allow for best profit through respect for the environment.

First do no harm!

Respect the environment and its processes - the source of all life.

farm design/layout

Buffer strips of locally indigenous trees, shrubs and ground cover should be established and maintained on the perimeter of cultivated lands. This is especially important adjacent to watercourses and wetlands to assist in intercepting nutrients and sediment run-off before it reaches the aquatic environment.

Windbreaks also prevent drift and movement of sprays, dust, pests, and noise to adjoining areas. Use fast growing indigenous trees – preferably locally occurring species.

slopes & soils

Have measures in place to prevent soil erosion. Slopes especially are prone to erosion and need to be farmed with care. Soil types need to be suitable for the crop being grown. Resist the temptation of growing unsuited crops based purely on market trends. Trends change and ultimately the environmental and financial costs can ruin you.

Maintain soil structure by not ploughing or deep ripping the soil. 'No till' is preferable, it helps prevent soil loss and is also less costly to implement.

Improve or maintain organic inputs into the soil by means of mulch, green manure crops or the addition of natural fertiliser such as chicken manure pellets. Not only is this more cost effective than inorganic fertiliser, but it improves soil structure and therefore productivity.

Feed the soil, not the plant. Maintaining soil health is imperative for lower input costs.

Utilise cover crops such as locally indigenous grasses in vineyards and orchards. Not only do they contribute organic matter to the soil but they also mulch it, suppress competitive weeds as well as provide a habitat for spiders and other useful predatory fauna.

water management

Irrigation and storm water run-off as well as effluent from kraals should be kept on farm and be scrubbed of their nutrient load. This is achieved through Intercepting and channelling run-off or tail water into specially constructed and vegetated sumps, settling ponds or channels before it enters dams. This water can be re-used and the practice should be a major design feature incorporated in the farm layout.

An alternative irrigation system is sub irrigation which uses drip irrigation lines and applies water to the plant from below the soil surface. Advantages include improved soil aeration and reduced surface soil crusting.

biocides

Aim for integrated pest management whereby the use of pesticides will be reduced.

Ensure that only the absolute minimum hazardous materials are kept on site and that those materials on the site are stored and managed in such a way so as to minimise potential environmental and social impacts.