

The Cape's Free-Range Crusader



Healing the earth and its people,
three times a day

Angus McIntosh is not like your typical South African farmer. He grew up in a cattle farm to the north of the country, but after a brief stint in London as a stockbroker, moved back to his native country where he started farming at Spier Estate near Cape Town. It was here that he decided that he needed to do things a little differently. After learning about more regenerative livestock management techniques, his idea was to create a humane, sustainable farming system. He now uses biodynamic principles to grow organic vegetables and grapes, as well as raise pasture-fed cattle and laying hens.

As part of his 126-ha irrigated grazing system, he uses a form of “mob grazing”, where 300 cattle are moved through pastures twice a day to deposit their natural fertilising manure and urine onto the land. By limiting the duration that cattle graze on one piece of land, the animals focus on the most nutritious top parts of the grasses. This leaves the roots to slough off, which helps to store carbon in the soil and promote grass growth. The cattle do not return to the same pasture for at least six weeks to allow the grass to regenerate. The hooves of the cattle aerate the soil, allowing for even more water to be stored.

The pasture has 16 varieties of grasses and legumes and the livestock are kept in temporary electric-fenced areas to graze on the nutritious plants. Spier has also installed a novel, environmentally-friendly water treatment plant, which recycles all of the wastewater to irrigate the estate's gardens. Removal of invasive, thirsty plants has improved the sustainability of water usage. And what's more, the farm is part of a local water conservation group, the Stellenbosch River Collaborative, which helps to improve the water quality of the nearby rivers.

The benefits of multi-species pasture

1. **Diversity** is key for a functioning ecosystem.
2. Each plant contributes to a **fully-nourished** animal.
3. Different plants have different interactions with the **soil microbes**.
4. Different growth stages of plants create a **balanced diet** of energy, fibre and protein.
5. Legumes fix atmospheric **nitrogen** to help other plants grow.
6. Flowers provide **nectar** for bees, who then honey.

The fork as a tool for justice

“ The paradox of agriculture is that whilst it is the biggest culprit in environmental destruction it is also the only thing that heal the earth in any meaningful way. That is determined entirely by your fork - ”

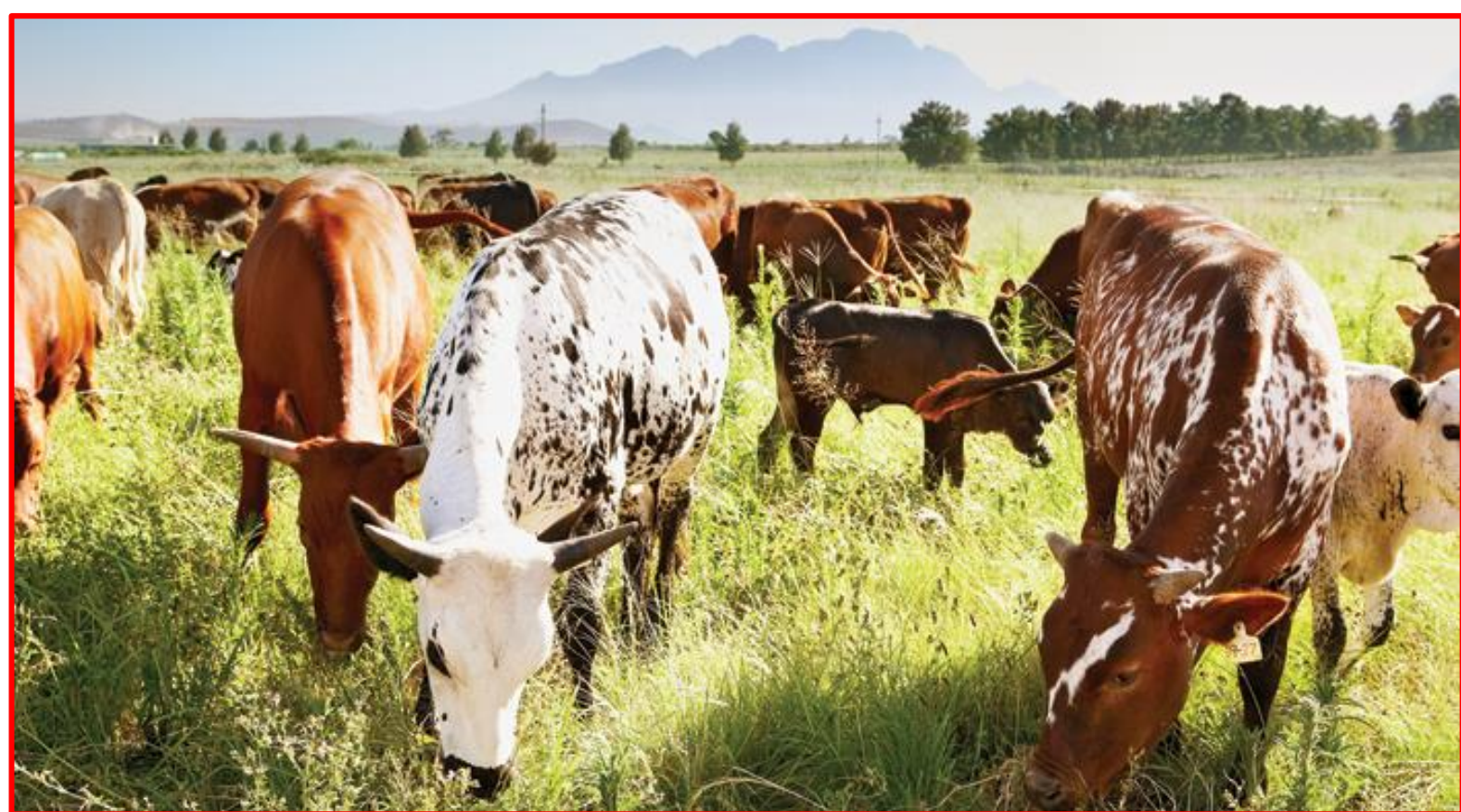
Angus McIntosh



Mr McIntosh supplies the local community with meat and eggs and also sells his produce to restaurants and retailers. Half of the net profits are directed at employee benefits. He's a firm believer that "you are what you eat" and feels that healthy food starts by creating healthy soil.

A bee-utiful pasture

All along the pasture edges, Mr McIntosh reserves land for wildlife. Here, these 15m wide "shelterbelts" are planted with carbon-capturing endemic wildflowers, trees and shrubs to act as windbreaks against the drying summer winds. These plants also provide ideal habitats for the birds and the bees, who each play important roles in nature as insectivores and pollinators. Also, the shelterbelts improve the tiny organisms that live in the soil, known as the microbiota, which helps enhance the vitality of the soil.



Eggmobiles: an eggcellent idea

Spier Farm also has 4,250 lay hens, kept in homemade "eggmobiles" (mobile laying houses), which are moved daily around the pastures. The hens are allowed in to the laying area at daybreak and are then shut out before dusk; once dark, they move into the roosting area of the eggmobile overnight to keep them safe. Eggs are collected three times a day.

The hens peck around in the grass, feeding on bugs, seeds and worms, but also scratch in the cow dung to find larvae. This acts to spread the manure onto the soil. They are supplemented with daily rations that are 85% GMO-free (they are aiming to go 100% GMO free in the future). The yolks from the eggs are exceptionally orange due to the healthy pasture that the hens are fed on. None of his animals are fed routine antibiotics or growth hormones. He's so proud of his tasty and nutritious eggs that he gulps down a freshly-laid egg to prove it. The hens are not debeaked as McIntosh finds this practice "unethical and inhumane". His chicks are raised in a nursery listening to classical music!



Mr McIntosh previously had pasture-reared chickens too but unfortunately had to close down his broiler (chicken meat) business as the capital investment needed for the increased housing and better packaging was around five times the amount that the farm had. This does mean that economies of scale do matter to when producing financially-viable businesses, even in the sustainability world.

Quackery in the vineyards

As part of the holistic management of the farm, natural processes are preferred where possible instead of manmade. This applies to pest control on the vineyards, where Indian Runner Ducks are used as avian pest controllers, who eat snails and insects that can damage the vines and topsoil. Like the chickens, at night they are kept in movable huts (DuckMobiles) so that they can be transported to other areas of the vineyard.

For more information, please see www.farmerangus.co.za. To see the eggmobile in action, visit <http://tinyurl.com/hddo9kr>.

And now for the science bit

Biodynamic farming is a form of organic farming that uses natural processes to regenerate environmental services. It considers universal relationships and builds upon interconnectedness to profess self-reliance and self-sufficiency. The foundation is that the whole is greater than the sum of its parts. It aims to minimise harmful inputs, which also help save the farmer money and make the environment safer. Farmers are reconnected with buyers through a focus on local production and consumption. Just a 2% increase in soil organic matter doubles the water holding capacity. Carbon is sequestered over 16 times faster than normal pasture grazing. His cattle breeds are a mixture of Nguni, Hereford and Beefmasters.

The farm is the only pasture-fed cattle and hen production system in the country. In 2015, Spier Estate won the Nedback Green Wine Award and the Getaway Award for Leadership in Water Conservation.

