

Back to the Soil: The Regenerative Route to Kenya's Potato Future



A lush potato crop rising from the hot, dusty landscape of Naivasha offers a striking backdrop to Andermatt Kenya CEO Hamish Ker's conviction that the future of farming lies in working with nature to restore soil health, strengthen crops and unlock their productive potential.

BY CATHERINE RIUNGU

Naivasha is not the first place that comes to mind when Kenyans think of potato country. Its hot, dusty landscape is a far cry from the cooler highland growing zones of Mau Narok, Nyandarua, Meru and Bomet, where conditions are more nat-

urally suited to potato production. Yet at Andermatt's demonstration plot in Naivasha, a lush, thriving potato crop stands out against the dry surroundings, inviting a question that goes beyond the performance of a single field: if potatoes can flourish here under a programme built around soil health and plant vitality, what might the same approach achieve in the country's more naturally favourable potato-growing regions?

Hamish Ker, CEO of Andermatt Kenya, sees the answer in regenerative agriculture, an approach that seeks to bring farming closer to nature by restoring the biological life of the soil and supporting the natural processes that sustain healthy crops. As he walks through the potato plot, his message returns repeatedly to one central idea:

healthy soil supports healthy plants, and healthy plants have a better chance of delivering stronger yields and better-quality produce.

Farming closer to nature

"Regenerative agriculture is how to farm closer to nature," Hamish explains. The principle may sound simple, but it represents a shift in how farmers think about productivity. Rather than concentrating only on what is applied to a crop, regenerative farming looks at the wider system that allows a plant to grow, absorb nutrients, develop strong roots and convert sunlight into the energy needed for production.

Hamish describes the approach as "going backwards to go forwards". The aim is to restore some of the life and bio-

logical activity that soils may have lost under the pressure of repeated cultivation and intensive production. Nature has developed complex processes over millennia, he argues, and farming can benefit from understanding those processes and putting them to work in a practical, commercial setting.

"How to weaponize nature, how to make the very most of nature," is how he puts it. The phrase captures his conviction that the answer is not necessarily to keep adding more inputs, but to make better use of the biological systems that already underpin plant growth.

The soil is where that process begins. When its biological activity and structure are supported, plants have a better foundation from which to establish themselves, develop roots and access nutrients.

Better plant health can then support stronger growth and improved

productivity. Regenerative agriculture, in this sense, is not one product or one treatment, but a way of bringing several practices together around the health of the growing system.

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The story beneath the leaves

The lush canopy visible at the Naivasha plot is only part of the story. Hamish says the real work begins beneath the surface, where healthy roots determine how effectively the potato plant can establish itself and support the growth of its tubers.

Andermatt's biological potato programme starts at planting, with seed treatments intended to support root development and help plants get off to a vigorous start. Products containing beneficial microorganisms, including Trichoderma and Bacillus, can be applied to seed tubers using a knapsack sprayer or through in-furrow treatment during mechanised planting. As the crop develops, further applications of biostimulants and biological nutrient products are used at different growth stages to support plant health and nutrient management.

The approach is designed to support the crop throughout its life cycle rather than rely on a single intervention. Specific nutrients, including micronutrients and macronutrients, may be combined with biostim-



» plants according to the plant's needs at different stages of growth.

Hamish draws a direct connection between root development and the crop farmers ultimately harvest. A stronger root system helps the plant access water and nutrients, while healthy growth above ground gives it greater capacity to photosynthesise and produce energy. That energy supports tuber development, creating the potential for more tubers and larger tubers, and ultimately a better yield.

"It's really about the roots," he says, emphasising that root health is especially important in a tuber crop. The objective is to give the plant the best possible conditions to express its productive potential.

This does not mean biological inputs alone can overcome every limitation in the field. Soil condition, water availability, crop management, nutrition and the wider growing environment all matter. Andermatt's proposition is that biological tools, used as part of a well-managed production programme, can help farmers improve plant health and make better use of the resources they invest in their crops.

Harnessing nature

The philosophy extends beyond potatoes. Andermatt works with biological solutions across several crops, including those that support Kenya's export economy, such as flowers, fresh produce and vegetables. Potatoes, however, have a particular place in the company's focus because of their importance to food security and the livelihoods of the many farmers who grow them.

Hamish believes the opportunity lies in understanding how natural processes can be supported rather than treating each production challenge in isolation. Soil microbes, for example, can play a role in making nutrients more available to plants. Reintroducing or supporting beneficial organisms through seed treatment or soil application can therefore complement conventional crop nutrition.

That thinking also informs his view of fertiliser use. Regenerative agriculture is not about simply removing fertiliser or replacing one category of input with another. Instead, it is about combining sound nutrient manage-



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ment with biological approaches that support soil life and help plants use available nutrients more effectively.

Hamish sees the potential for a more integrated package that brings together fertilisers, biological products, biostimulants and other good agronomic practices. The aim is to improve overall crop health while helping farmers get a better return from the nutrients and other inputs they already purchase.

"It's really not a single solution," he says. "It's really how we can bring to the farmer a package of solutions that optimises plant and crop health, rather than just focusing on one area in particular."

The cost of that package matters, particularly for smallholder farmers working with limited budgets. Its components need to be relevant to the

farm, affordable and applied in ways that deliver practical value.

What could it mean for potato yields?

The potential gains are significant, although they depend on growing conditions and the quality of crop management. Hamish estimates that some Kenyan farmers may be harvesting around two to five tonnes of potatoes per hectare, while yields of 25 tonnes per hectare or more may be possible under optimal conditions. With favourable conditions and supplementary irrigation where needed, he believes production could potentially reach 40 to 50 tonnes per hectare.

He also sees scope for yield improvements of 30 to 60 per cent through better practices and improved crop health. These are estimates of the opportunity, not guaranteed outcomes: actual results will depend on the starting point, variety, soil, water, nutrition, disease pressure and the way the crop is managed.

The broader point is that potato productivity cannot be separated



from the health of the system producing it. Stronger roots, better nutrient availability and vigorous plant growth can all contribute to improved performance, but they must work together with appropriate agronomy and the conditions required for the crop to thrive.

That is particularly relevant in a country where potatoes are a major staple and an important source of income for smallholder farmers. Better productivity and quality can strengthen the crop's contribution to food security while improving the prospects of the farmers who depend on it.

Beyond the fertiliser bag

Hamish believes the same principles should inform how agricultural support is designed. Rather than focusing subsidies narrowly on individual inputs, he suggests that farmers could benefit from packages that address soil health and crop nutrition together.

Such an approach would combine fertilisers with biological products and practices that support the life of the soil, helping make nutrients more available and potentially improving the return on fertiliser investment. The intention is not to discard conventional tools, but to use them within a more holistic system that recognises the role of soil biology in crop performance.

He sees government support for knowledge transfer, farmer training and demonstration as important to making that transition possible. Farmers need opportunities to see technologies in practice, understand how they work and assess their relevance to their own farms. Support for the biological industry, alongside sound agronomic advice, could help make regenerative practices more accessible.

The challenge is to ensure that the transition reaches both intensive commercial producers and smallholders. Regenerative agriculture cannot become the norm if it remains an option available only to farmers with the resources to experiment. The practices and packages must be adapted to different production systems and budgets.

Hamish also points to the environmental dimension. Restoring soil health and increasing the amount of carbon held in soils can contribute to broader sustainability goals, along-

side the practical benefits of improved crop performance and produce quality. In his view, healthier soils and productive farms need not be competing priorities.

From Andermatt farm in Naivasha to Freshcrop, Mau Narok

The Naivasha demonstration plot provides a vivid setting in which to explore Hamish's argument. The thriving crop against the hot, dusty surroundings draws attention to the role of crop management and plant health, while also reminding visitors that every growing environment presents its own challenges.

The next opportunity to see Andermatt's potato work in a different setting comes on 29 October, during the World Potato Congress field day at Freshcrop in Mau Narok, Nakuru County. Located in a region more naturally suited to potato production, Freshcrop will host visitors among trial blocks showcasing technologies and approaches aimed at improving potato yields and quality.

The two locations offer different contexts for the same conversation: what can farmers achieve when soil health, root development and overall crop vitality are treated as integral parts of production? Hamish sees the field day as an opportunity for farmers and other stakeholders to engage with the technologies, examine the crop and consider how such approaches might translate to their own farms.

The World Potato Congress, which brings the global potato community to Kenya, creates a timely platform for that exchange. Demonstrations and field visits can help turn ideas into practical knowledge, giving farmers the opportunity to assess new approaches and consider the choices available to them.

Ultimately, Hamish wants regenerative agriculture to move from the exception to the norm. His argument is that farming has much to gain by working with the natural processes that sustain crops, rather than focusing only on the inputs applied to them.

Back to the soil, in order to move forward. ■

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