Products of the Greater Cederberg Biodiversity Corridor

Promoting Sustainable Potato Production

Potatoes are one of South Africa’s most affordable staple foods and are capable of being grown on less land and in harsher climates than cereal crops. However, potato farming has significant impact on South Africa’s biodiversity through land transformation and intensive water usage. In response the potato industry has initiated a sustainable potato growing project in the Western Cape. The Sandveld Biodiversity Best Practice Potatoes Project has developed guidelines for better agricultural practice and is piloting these in the region.

Agriculture and in particular potato production is the core economic activity in the Sandveld area of the Western Cape. On average approximately 6000 ha’s of potatoes are planted annually for the production of seed potatoes, fresh potatoes and potatoes for the processing industry (French fries and frozen products).

A significant portion of the annual potato industry turnover is generated in the Sandveld with an annual turnover that can approach R400 million per annum (calculated on 6500 ha x 40t/ha x R13/10kg). Input costs in the Sandveld are high and have risen from R 65 000-00 p/ha in 2007 to over R100 000-00 p/ha this year primarily as a result of escalating fuel, fertiliser and crop protection costs.

In addition to rising input costs climatic conditions pose an increasing challenge in maintaining a viable enterprise. Projections for the area from global climate change modelling exercises conducted by the University of the Witwatersrand show decreased rainfall in the interior and increased minimum and maximum temperatures. This translates into less water availability and increased evapo-transpiration from the plants. These conditions pose a significant risk to the business and biodiversity of the area in the years to come. Particularly as, with the exception of the production along the Olifants and Berg Rivers, almost all irrigation depends on groundwater as a source of water and less will be available in time to come. The underground water reserve volume remains unknown but there is evidence of over-abstraction and reduced water quality in some aquifers.

Potato farms (in green) of the Sandveld region of the Western Cape

Sandveld Biodiversity Best Practice Potatoes Project

Potato production is putting two crucial natural resource under extreme stress. Firstly, threatened habitats are being cleared for agricultural production and secondly, the over-abstraction of water resources is impacting on farmers, local communities and the environment. Potatoes South Africa and CapeNature
have joined forces to address agricultural sustainability for this industry sector through a biodiversity better practices project.

The project’s key objectives are:
✦ To improve general farming practices through the implementation of the biodiversity better practice guidelines;
✦ To improve soil conservation through the implementation of sound soil management principles;
✦ To improve water conservation through the implementation of efficient irrigation guidelines;
✦ To improve soil fertility and plant nutrition through the implementation of effective fertilisation guidelines;
✦ To promote integrated pest management principles aimed at minimizing the environmental impacts of agro-chemicals; and
✦ To develop social and economic criteria for the sector to ensure sustainability.

Maximising Producer Benefits of Well-Managed Farms

The benefits of the project extend beyond the obvious environmental impacts. For the farmer this project offers;
✦ Positioning your business to access future markets that require environmental performance criteria.
✦ Improving profitability and resource use efficiencies through access to applied research and independent advisory services aimed at improving the sustainability of potato production.
✦ Improving profitability and predictability by proactively responding to global climate change through applicable technologies and management techniques for improving water use efficiencies.
✦ Improving the market value of your production system over the medium to long term.
✦ Ensuring that the generations to come have the opportunity to farm productively and enjoy the same quality of life on the same property.
✦ Through the conservation and effective management of biodiversity (natural systems) ensuring that the unique sense of place of the West Coast is retained and that the environment can perform its free services of purifying water, preventing flood damage, ensuring the pollination of crops, drawing ecotourists, providing adequate grazing and reducing the impacts of global climate change in perpetuity.
✦ Mitigating risks associated with the non-compliance to national legislation in a coordinated and robust way.

For more information about sustainable potato production

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MILESTONES

Farmers in the Sandveld Biodiversity Best Practice Potatoes Project are ideally positioned to benefit from a growing trend towards responsible consumption while also improving yield through the adoption of good practices. Expected milestones include:
✦ Initiating best practices on an additional 20 producer properties;
✦ Initiating implementation of previous year’s Environmental Management Plans on producer properties;
✦ Investigating and developing innovative opportunities to add value to the sustainable production of potatoes;
✦ Promoting wider adherence to natural resource legislation, Department of Environmental Affairs & Development Planning and Department of Agriculture Forestry and Fisheries; and
✦ Developing Social and Economic criteria and indicators for the industry.