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WESTFALIA

Westfalia Fruit operates various avocado estates located on different continents. In South Africa, farms situated in the Limpopo and KwaZulu-Natal provinces include Westfalia, Macnoon, Agrivet, Goedgelegen and Everdon. Orchards are currently being established on Zembe Farm in Mozambique, while the Group also has farming assets in Colombia in South America.

The geographical spread of operations provides Westfalia with the ability to stretch its production season over a longer period of time – an important factor in the supply of fruit for 12 months of the year. Growing fruit in different areas also minimises climatic risks.



Farming at Westfalia Fruit is undertaken using the most modern and sustainable horticultural practices and involves orchard management, pest and disease control, the most suitable rootstocks and cultivars, and post-harvest fruit-management procedures. The farms are fully compliant with the applicable local and international certification schemes.

Westfalia's orchard-management approach is fully compliant with Good Agricultural Practices (GAP), which ensures safe farming for the consumer, employees, community and the environment – making us better neighbours.

Good-quality clonal rootstock avocado trees for the orchards are supplied by the world-renowned Westfalia Nursery, which carries full accreditation.

ROADS

Westfalia Fruit farms roads in the Tzaneen district are mostly gravel. This presents several challenges, which could be harmful to the business.

Dust from the roads settle onto the fruit trees and retards growth> Furthermore the dirt roads turns to mud during the raining season, hampering access to and from the estate. When the roads dry, serious maintenance is required to bring the roads back to pristine condition.

Late in 2016, Westfalia appointed Polyroads to stabilize their dirt roads and to turn them into all-weather roads, with minimum dust emissions.

STABILIZATION METHODOLOGY

The roads were ripped to a depth of 150^{mm} and stabilized with 1.5 litres of SoilTech Mk. III polymer per m². The road was then compacted with a 10-ton roller. Thereafter a diluted mix of SoilTech and water was sprayed over the road.

Since stabilization, the Limpopo region have experience heavy summer rains, which left all the unstabilized roads impassable.





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SoilTech

Mk. III Stabilizer

SoilTech Mk. III, a third generation polymer binder and is the flagship product of the company. It is a road stabilization agent specifically designed for mine haul-road stabilization, where excessive loading occurs and where all-weather roads are required. This technology is now used in commercial road design. SoilTech Mk. III has been extensively utilized in base and sub-base stabilization using in-situ materials, throughout the developing world,

SoilTech stabilizing polymers are elastomers, which gain strength from mechanical compaction and do not become brittle when cured. The elastomer is able to flex under load and unlike cement stabilization, will not crack under excessive loading – one aspect in reducing layer work in design phases

SoilTech MK III stabilizers have been purposely designed to penetrate through the road's base layer, into the sub-base layer, via capillary action. This sub-base strengthening process is of significant importance as we are not only stabilizing the road's base layer, but also creating a semi-bound sub-base. From a road design perspective, a strengthened sub-base may negate the need for further layer-works. SoilTech, in many instances, transforms insitu materials that would normally be classified as unusable or waste materials, into suitably modified aggregates, for use in base and sub-base layer construction.

With SoilTech Smart Road Materials (SRM), one can;

- Reduce the consumption of quarry aggregate in conventional construction
- In many instances in-situ materials can be used
- Speed up construction time
- Reduce construction costs
- Dramatically reduce CO₂ emissions
- Reduced maintenance – as long as the asphalt wearing course layer is maintained, the structural integrity of the road will be preserved, with the road pavement remaining rut-free and eliminating the need for base or sub-base maintenance.

Smart Road Materials are technological advancements in polymer technology that drives our innovation in new construction methodologies.

- Multi-layer stabilization with SoilTech technology
- Reduce road construction costs by 20-30%
- Reduce construction time by 30%
- ISO 9001 & ISO 14001

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