MAYFIELD ENTERPRISES

THE SIMPLE SOLUTION
DANGERS OF TECHNOLOGY
Challenges facing the Fertilizer Industry

- Heavy Imports-Lack of Domestic Production
- Low Yield Due to Wrong Usages of NPK
- Distributors and Retailers-Key Influencers in Specialty Fertilizers Industry
- Raw Material Availability and Pricing

African Development Bank issues call to strengthen fertilizer value chains (2020)
Nutrient use imbalance and the general decline in soil fertility in Sri Lanka is primarily policy-induced. The national government adopted a subsidy scheme for Urea, which inadvertently resulted in increased Urea consumption and the evident reduction in the use of P and K fertilizers.

**Challenges in Asia**

Jul 29, 2019 - The widespread production and use of the common fertiliser chemical urea in India's large agriculture sector has led to alarming levels of nitrogen pollution of surface water and groundwater in many Indian states, says the report produced by the Centre for Science and Environment (CSE), a not-for-profit think-tank.

**Challenges in India**

“Fertilizers are closely connected to food security. Especially during growing season in the spring when fertilizers are primarily applied to the field. Farmers and horticulturists depend on the supply of fertilizers to grow their crops and thereby our food.”

Jacob Hansen, Director General, Fertilizers Europe
The Good News
Mayfield – History

Mayfield Enterprises began as a family business in 1983 on the KwaZulu Natal North Coast where a product was developed to provide an ergonomic and cost-effective knapsack fertiliser applicator for sugarcane crops. The applicator was quickly recognised as a device especially suited for the accurate and efficient application of fertilizer in sugar crops. The product proved so effective that it was patented in 1983 and successfully applied throughout the sugar belt of the KwaZulu Natal Coast.

The Mayfield applicator was subsequently diversified for forestry, row crops etc. The unique differentiator of the Mayfield Fertilizer Applicator is that it is well adapted for non-mechanised difficult terrain and in low-cost farming. The Mayfield functions from a knapsack which fits comfortably on the operators back. The knapsack holds the fertilizer which is applied by a control device that regulates the flow of fertilizer at the required rate of application.

The business has remained in family hands and still trades as a sole proprietorship. However, the business has expanded to employ a permanent factory manager, factory assembly staff and 3 office administrators. The product is shipped to several countries including Zambia, Zimbabwe, Mauritius, the Middle East and South America. There has been keen interest from India and China where the product has been extremely well received.
Mayfield - Benefits

- **Cost Effective**
  Manual application allows for optimisation of labour.

- **Uniform Application**
  The Mayfield products reduces human error and ensures uniform and accurate application of fertilizer.

- **Soil Compaction**
  Manual application avoids soil compaction caused by mechanical implements.

- **Accessibility**
  The Mayfield products are not constrained by topography or weather and can play a critical role in fertilization where mechanical application is impossible or impractical.

- **Low Depreciation**
  A minimum upfront investment in durable, rust proof products ensures a long lifetime and return on investment.

- **Terrain**
  The Mayfield products are not constrained by steep or uneven terrain and can therefore be used where mechanical application is impossible.
Mayfield - Products

Mayfield Double Applicator soft

Mayfield Single Applicator hard

Mayfield Double Applicator hard

Mayfield Single Applicator soft

Mayfield Calibration Nozzle (sets rate of application)
Mayfield - Products

Working view of row crop applicator

https://www.youtube.com/watch?v=2DIHnBEGDso
Setting aperture for flow rate control on calibration nozzle.

https://www.youtube.com/watch?v=d80Sq-cauWk
Mayfield - Products

Working view of row crop applicator

https://www.youtube.com/watch?v=HuVrvdOFLC8
The Mayfield products are found in developing countries or in areas with difficult terrain. There has been interest however in 1st world countries such as Ireland.

Clients are sugar estates, developmental, commercial farmers directly or through co-ops / agents, emerging farmer, etc.
Mayfield – in production

The new Mayfield design has been updated for greater ergonomic comfort and efficiency. The benefit of the new design results in easier and cheaper transportation.
Mayfield – in production

The new Mayfield dispenser revises an old product to ensure accurate dispensing of measured volumes of fertiliser to individual plants.
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