

PYRETHRUM MARKETING.

Pyrethrum is marketed through the Pyrethrum Board of Kenya (PBK). The produce is collected by the aggregators at collection centres, Cooperative societies or individual farmers. The dry flowers are transported using pick ups or lorries by the PRA field officers to the processing factory where the deliveries are weighed and pyrethrin content determined before processing for each individual grower, cooperative society or marketing agents.

[The dry flowers are Sold to Pyrethrum Board of Kenya (PBK) through farmer Co-operative Societies and flower collection centres with the support of the PRA extension officers]

Advance payment of Ksh. 100 per kg on delivery and the new producer price range of Ksh. 100 to 375 per kg based on pyrethrins content were a major attraction of farmers to return to pyrethrum growing. The farmers were also issued with stockholder certificates for ownership of PBK, which boosted their interest in the crop.

Farmers' return to growing pyrethrum has been attracted by issuance of ownership stockholder certificates and payments for dry flowers at the new producer price range of Ksh. 100 to 375 per kg based on pyrethrins content; whereby the farmer is paid Kshs 100 per every kg of dry flowers on delivery and thereafter a second payment after determination of the pyrethrin content.

There has been an increase of pyrethrins content in dry flowers from 1.4 to 1.5% in the last one year alone. The projected national average is 1.7% by 2014/15 which is achievable given efforts from PBK management and farmers. The PBK factory adds value to pyrethrins from 1.4% in flowers to over 50% in the refined product.

The refined product, pale extract, is the current cash cow for PBK. It has a range of market segments in the Americas (52%), Europe (35%), Austria & Asia (8%) and Africa (5%). One kg of the product sells at US\$ 270 and due to the high demand, the customers always desire to pay up-front once processing is assured. PBK has also diversified its value chain by formulating insecticides. To date, six end use products have been registered, one of which gives a profit of Ksh 22,000 per kg compared to Ksh. 3,000 per kg profit margin from the refined product.

For every processing of 100 MT of flowers, 1.65 MT of the refined product is produced; refined product, known as pale extract which is mainly exported (80%) and remaining 20% sold to formulators for value addition .

There are three (3) levels of Product Portfolio:

Technical Products

- Pyrethrum Powder 1.3% w/w AOAC
- Pyrethrum Grist
- Pyrethrum Extract Crude Oleo-Resin 25% w/w PBK
- Pyrethrum Extract Pale 25% w/w, 50% w/w, 50% w/w AOAC pharma, and Conc. w/w AOAC
– for export market

By-Products

- Vegetable Waxy Resins (V.W.R.)
- Green oils
- Pyrethrum Fine & Coarse Mark (Py-Mack, is a by-product of the pyrethrin manufacturing industry, and is used as cattle feed. Most of the pyrethrins have been extracted, but enough remains that py-mack can be used as cutworm bait, and in treating early attacks of maize stalkborer. Feeding livestock py-mack is also said to reduce incidence of intestinal worms.)

End-Use Products (insecticides)//Formulations awaiting commercialization

- Pyagro 4EC – Crop protection product
- Pydust 1% - Grain storage product
- Pymos 0.6EC – Adult Mosquito product
- Pylarvex 0.5EC – Larvae stage mosquito product
- Pynet 5EC – Net treatment product
- Pytix 4% - Tick control product.

After value addition the above 3 categories of products confirms that pyrethrum fits well in the economic pillar of vision 2030 as the crop can be converted into a myriad of value added products. **Thus, every single product derived from pyrethrum becomes a raw material for other products.**

OTHER PYRETHRUM PRODUCTS

In addition final product, none of the myriad by-products from the factory is a waste material. For example, Pymarc by-product is sold at Ksh.1,250 per 50 kg bag while sludge is sold at Ksh.50 per kg. In a nutshell one processing of 100 metric tonnes of flowers earns PBK over Ksh. 46 million.

The Pyrethrum industry previously relied on the international market that could only absorb 8000MT of Kenya's pyrethrum against estimated potential production of 20,000 MT per year. For the industry to maintain its market share in the international market, there is need to put in place strategies for sustainable supply of raw materials.

Additionally, there is also need to exploit the potential that exists in the local and regional market in order to market what the international market cannot absorb. There exists huge potential in the local market for natural pyrethrum products. For instance, the horticulture industry must meet the requirements for minimum chemical residue levels for products exported to the European market. Availability of a natural insecticide would greatly reduce this burden for the industry.

VALUE ADDITION

PBK further formulated and registered 6 insecticides (awaiting commercialization) for use in public health and sanitation, animal industry and crop protection sub-sectors in an effort to diversify revenue sources and replace Pale by end use products as PBK's cash cow. However, they are only available at PBK's shop at the Head Office, Nakuru due to limited production.

These end use products are more profitable than Pale with Pymos (TM) 0.6EC giving a gross margin of Ksh. 22,000 per kg compared with Ksh. 2,600 per kg from Pale. The current production of the pyrethrum extracts is inadequate for the Board to venture into mass production of these insecticides.

Being a manufacturing business entity, Pyrethrum Board of Kenya procures raw material (pyrethrum flowers) from grower, processes into extract which is then sold to the customers.

Product lines contribution and performance

- i. Extract (Pale)
This is the major product which, accounts for 96% of the business revenue.
- ii. Pymarc
Used for animal feeds and accounts for 3% of the sales revenue.
- iii. Value added products (End-use products)

There are five end use products developed from value addition whose profitability in relation to the extract (pale) is tenfold. It is currently accounting for 1% of the revenue earned as it is still under market development process.

Traditional markets for pale have remained the same now at the following levels: Americas (20%), Europe (42%), Australia/Asia (21%), Kenya (10%) and rest of Africa (7%).

Issues or challenges in Pyrethrum Marketing include:

- continued unreliability in delivery of pyrethrum products;
- price setting – limited supplies works against initiating price negotiations;
- cost of maintaining international registrations at low sales volumes (annual subscription);
- cost of technical representation in international markets, which is a must by consumer country legislations.

The main pesticides formulators in Kenya include Syngenta, BASF, Orion

Utilization: Aerosols, agricultural sprays, livestock sprays, powder dusts, mosquito coils, pymarc (animal feed)