

Case Study: Promoting a competition in inoculant supply

Background

Soybean, groundnuts, beans and pigeon peas provide livelihoods for millions of Malawians. However, Malawian smallholders are producing at well below the potential yields for these crops.

Improving productivity can result from a range of agricultural practices and inputs. One that had been overlooked in Malawi is inoculant, a bio-fertiliser that enables nitrogen fixation in legumes. Inoculant has been shown to improve yields by over 30% in groundnut, and 60% in soybean.

Up until 2013, inoculant was produced exclusively by the Government's Department of Agricultural Research Services (DARS), which only supplied 15,000 sachets annually to a small group of commercial or well-connected farmers, who knew about it.

From 2013 to 2018, the Malawi Oilseed Sector Transformation (MOST) project promoted the commercialisation of inoculant by working with DARS and Agro-input Supplies Ltd (AISL), to support the commercial production and distribution of inoculant. AISL sold 142,000 sachets of soybean inoculant and 131,000 of groundnut inoculant in the 2017/18 season, reaching an estimated 103,147 smallholders (43,012 for soybean and 60,135 for groundnut). Working with other development partners, MOST also influenced the introduction of a second brand of soybean and groundnut inoculant, the BASF product 'Hi Stick', distributed by Farmers Organisation Limited.

By the end of the MOST project, a nascent inoculant market had developed, with awareness and uptake increasing among legume growing smallholders. However, competition in the market remained limited, with only two suppliers, one of which was targeting more commercial farmers. Limited competition raises the risk of consumers (i.e. smallholders) being exposed to unfair business practices, including inflated prices. A thin and uncompetitive market also reduces the pressure on existing suppliers to innovate and expand distribution. Finally, fewer suppliers could compromise the resilience of the market, exposing suppliers and buyers to a higher risk of shocks and stresses.

Early in 2019, during its inception phase, the PROSPER Markets project saw the opportunity to pick up where MOST had left off in encouraging competition and growth in the inoculant market. The project saw two key barriers to market growth: lack of awareness by potential new private investors on the availability of new inoculant strains (e.g. bean, pigeon pea), and





limited understanding among these businesses on how to bring the product to market successfully.

With this in mind, PROSPER Markets' set itself an objective to encourage a competitive and inclusive market for inoculant through:

- a) encouraging new domestic businesses to produce and distribute different types of inoculant, (including soybean, groundnuts, beans, pigeon peas, and/or peas).
- b) promoting opportunities for investing in the inoculant market through providing business models that inform and enable potential investors to start and grow an inoculant manufacture and supply business.

Finding a new partner

In March 2019, PROSPER Markets began discussing with MANDOLO, a partnership formed by four women with pre-existing businesses, about entering the inoculant market as a new supplier. Having first heard about the opportunity at the Inoculant Conference facilitated by MOST in 2017, they were now looking to invest in inoculant production and distribution. Up to this point MANDOLO had signed a Memorandum of Understanding with DARS to access inoculant strains. MANDOLO were in the very early stages of setting up a processing unit and developing packaging options with the aim of launching for the 2019/20 input sales season.

This promising start notwithstanding, the PROSPER Markets team was aware of the challenges and risks a new business faces when launching a new product in Malawi. Using its prior experience of working with inoculant suppliers under MOST, the team sought to understand what support MANDOLO needed to successfully enter the market.

The review found that MANDOLO's immediate requirements were: (1) a business plan to inform financial, operational and marketing actions; (2) a lab expert to support production and quality (3) a marketing strategy and (4) advice and support to implement the plan. Based on this, In April 2019, PROSPER Markets and MANDOLO agreed a technical support partnership with the objective to get MANDOLO fully operational and into the market.



Market entry

PROSPER Markets and MANDOLO signed a partner agreement, with in the aim of launching MANDOLO's range of inoculant products in the 2020/21 input sales season. The project's support included designing and sourcing packaging material; cost sharing and advising on marketing; and business planning support. The process was led by the PROSPER Markets team members who had previously worked on inoculant under MOST, lending their hard-won experience and insights.



As the season approached, PROSPER Markets adapted its support to MANDOLO to meet emerging challenges. For example, MANDOLO found that it could not procure affordable, quality sachets for its inoculant in Malawi, so PROSPER Markets identified and facilitated procurement of 200,000 sachets from China under a cost share agreement.



MANDOLO was inexperienced at establishing a distribution network. PROSPER Markets' Market Manager worked with the MANDOLO team to decide on the best approach and to facilitate introductions. A Distribution Lead was hired by MANDOLO to establish demand and pre-orders for the coming season, cost shared by PROSPER Markets.

PROSPER Markets advised MANDOLO around establishing its production unit. To ensure that the quality of the product was controlled, MANDOLO needed to bring in a Lab Technician, which was done as a cost share with PROSPER Markets.

Finally, MANDOLO had little experience in how to launch a new product, something that the PROSPER Markets' Market Manager had worked on before. PROSPER Markets guided MANDOLO on the key decisions it needed to make and cost shared on some items, such as developing 'mini clips'¹ to promote the product range and show how to apply it to seed.

MANDOLO successfully launched its range of inoculant products for soybean, groundnut, beans and pigeon pea in September 2019.

Results

In the input season (Nov 2019 -Jan 2020), MANDOLO distributed 119,000 sachets of inoculant, with actual sales of 79,911 sachets. Of these, 32% was sold through agro-dealers, 58% sold to NGOs and 9% via direct sales. Sales were highest in Central Region, where legume production is highest and via the major cities of Lilongwe and Blantyre.

However, despite successfully entering the market and establishing its brand, MANDOLO experienced several challenges:

Overstocking

MANDOLO overproduced in anticipation of higher sales. Although it managed to sell some of the surplus in the winter planting season, it had to dispose of excess stock (out of date), representing a loss to the business.

"Despite getting advice from PROSPER Markets to produce limited quantities in the first year on the market, we were overwhelmed and excited by the potential demand without taking into consideration

¹ One minute clips that can be viewed on a phone and passed easily by WhatsApp.



all other challenges that come with penetrating the market with a new product and also considering our own capacity to achieve our desire.”²

Remittance delays

Not all agro-dealers that stocked and sold MANDOLO inoculant paid in a timely manner, with many taking several months to remit. This presented cashflow challenges for MANDOLO that limited its ability to invest and expand for the 2020/21 season. PROSPER Markets proposed a minimal stock/fast re-stock approach to reduce risk.

“The lesson from 2019 performance is on how we can manage risk of non-remittance of sales money. [We plan to test] drip stocking, where we will provide limited stock and restock when payment of quantities sold is remitted. We believe that the agro dealers will want to make more sales, therefore they will remit the money from sales in order to get more stocks. These will be offered the product on cash with an agreement that they will be refunded on quantities unsold after the season, the quantity they will stock will depend on their capacity to buy cash.”³

Poor performance of pigeon pea inoculant

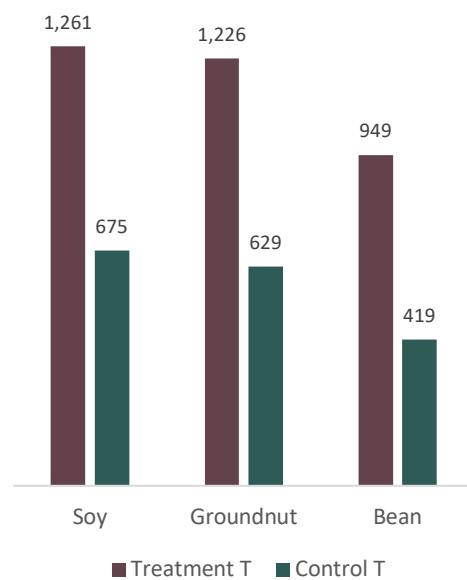
Trialling a new strain of pigeon pea inoculant ultimately proved unsuccessful, with less than 1,500 sachets sold, partly down to poor prices for pigeon pea and so lack of investment by smallholders into the crop. Based on this, MANDOLO has discontinued production of the pigeon pea inoculant for now, instead focussing on its soy, groundnut, and bean strains

Impact

Despite these challenges, MANDOLO’s first season was a success. Not only were they able to make substantial sales to a range of customers, they introduced a strong new brand to the market, gaining attention and credibility, positioning them to expand and grow their business in the 2020/21 season.

PROSPER Markets estimates that over 45,800 smallholders have accessed MANDOLO’s inoculant products this season, with at least 37,900 of these benefitting from improved yields. An independent impact assessment found that MANDOLO inoculant users have increased their yields by 96% in soybean production and 31% in groundnut production⁴. 87% of soybean inoculant users and 76% of groundnut inoculant users consider inoculant to be the main factor for their yield increase. A few smallholders reporting poor yield attributed it to

Yield Levels: MANDOLO inoculant Vs No Inoculant (kg/ha)



² MANDOLO Business Plan, 2020

³ MANDOLO Business Plan, 2020

⁴ 2019-20 compared to previous year’s yield without inoculant and a counterfactual/control group



bad weather (33%) and late planting (25%)⁵. PROSPER Markets estimates that this has led to net attributable income increases for smallholders totalling £1,890,163.

Next steps

Following a promising first year, PROSPER Markets will continue to provide technical advice and support to MANDOLO as it scales up production and sale in the 2020/21 season. MANDOLO aims to increase sales from 80,000 sachets to at least 140,000 in the 2020/21 season, with greater focus on PROSPER's focal districts in the Southern Region.

"Now that we have information on the performance of our inoculant, we will review our promotion messages and develop messages that speak more on the impact as experienced by the smallholder farmers in 2019. Among the promotion activities, roadshows and radio adverts will be key, specifically targeting districts with potential, but limited awareness on inoculant."⁶

Andrew Seward
Team Leader
PROSPER Markets

⁵ Impact Assessment of Mandolo Inoculant Production and Distribution for Soybean, Groundnut, and Bean crops, Everest Intelligence, 2020

⁶ MANDOLO Business Plan, 2020