MANAGE - RKVY RAFTAAR Agri-Startup Story No. 16

Agri-Startup Category: Farm Mechanisation and Innovations







Crysops BioControl

Founded by Mr. Jayasheelan, Crysops BioControl provides complete BioControl solutions for pest management & waste management in farming.

The founding story of Crysops BioControl dates back to Mr. Jayasheelan Masters' days, where as a student of Entomology he was involved in deep research & field trials in the domain of Integrated Pest Management.

"It was during my field work that I was able to fathom the knock-on effect chemical pesticides were having on crops & entire farming ecosystem. I saw farmers excessively & inappropriately applying chemicals for controlling pests and yet were unable to keep the pests at bay rather the farming operations got more constrained with eruption of new kind of pests. That is precisely the business strategy of corporates selling pesticide, getting farmers trapped in the quagmire of chemical treatment where they can't help but apply more pesticide which in turn causes more pests than control them ," remarks Mr. Jayasheelan.

This learning got etched into his memory paving way for Mr. Jayasheelan entrepreneurial journey. With his roots in Thoothukudi in Tamil Nadu, he was well-versed with the infestation of coconut palms with whiteflies & black-headed caterpillars in the region, causing crop loss, market fluctuation & subsequently price hike. And coconut being an important cash crop in the region held high hopes for farmers for huge returns.

Costing high not only the pocket but also a complete no-no for health these chemicals are notorious for their carcinogenic inducing properties both in plants and humans.

Seeing this sorry state of affairs, he was propelled to come up with an alternate viable pest management solution. Finding answer in Nature's modus operandi, Mr Jayasheelan ideated Crysops BioControl.







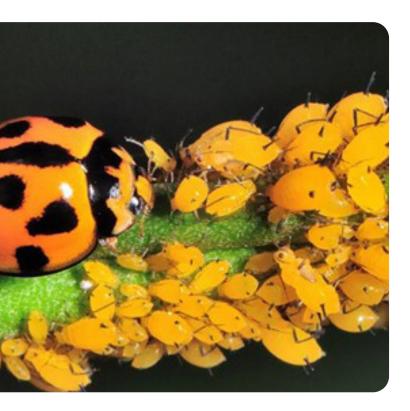


Bringing forth his intensive research experience in integrated pest management with his professional experience as a BioControl Specialist for various Bio companies, Mr. Jayasheelan started offering pest management services for a variety of crops including Coconut, Cardamom, Banana, Paddy, Maize in Kanyakumari, Coimbatore, Tiruppur, Tanjore districts of Tamil Nadu. Positing themselves as a unique player in the market they offer pest control for several crops unlike Biobee or Companies offering single crop target pest management solution.

Eeffectively employing the predators & parasitoids method, they bring in a holistic approach to pest control in an eco-friendly manner.

Startup Product Details

Thoothukudi based Crysops BioControl provides complete pest management solutions by practising the





natural enemies or beneficial insects approach, using biological creatures in lieu of pesticides. They have proposed predators that decomposes waste & that waste is utilized as bio fertilizers.

They target a wide range of destructive insects: whiteflies & black headed caterpillars in coconut, fall army worm in maize, root grubs in cardamom, tea mosquitoes in tea, stem bores in rice & sugarcane by finding a biological control, a naturally occurring insect to predate upon the pest.

Crysops BioControl is involved in the production of predators through insect culture. As per the demands of crops in different seasons they get insect cultures which are further multiplied through synthetic diet. It takes 30-45 days on an average for an insect culture to multiply from 1-100. Given the limited shelf life of the predators they only cater to production on an order basis. Post this the insects are packed in netted boxes maintaining highest safety standard all time.

Farmers can place order through phone and the crates are delivered based on the availability and the distance. Crysops BioControl agents include:

1. Green Lacewings - To tackle the invasive whitefly in coconut crop they culture Green lacewings & release them on field.

2. Telenomus, Trichogramma & Reduviids - To tackle the fall army worm infestation of dry land crop maize.

Areas of Operation

With their services in Kerala (Idukki), Karnataka (Raichur) & Tamil Nadu (Kanyakumari, Tirunelveli, Thoothukudi) they have supported 200 farmers and employed two people.

With a yearly customer base of 250 people, they have generated a revenue of ₹ 2.5 Lakhs.

Marketing Strategy

As a part of their marketing strategy they are approaching Agricultural Department, Farming Societies and FPOs.

To expand and create larger visibility for their services they have tied up with Incubation forums where they have access to Farmer Groups, Farmer Association & FPOs. They are directly approaching Agricultural departments & Krishi Vigyan Kendra's, putting up stalls at exhibitions & doing live demonstration to help farmers & institute understand the process.

Challenges

One of the initial day challenges was to make the farmers aware about the effectiveness of the predators & parasitoids approach. Famers had their preferences very much slanted towards chemical pesticide treatment and were hesitant in adopting this new approach.

Live demonstration & field trials proved extremely helpful in gaining farmer's confidence in this pest treatment process. Post few consignment they were able to on board farmers. One other challenge was the shorter shelf life of live insects which obstructed on field large scale operations.

Acheivements

To carve a niche for BioControl pest management they are regularly conducting awareness & live demonstration workshop roping in more farmers. Some of the workshops include:

- A 2 Day Workshop on Organic way of pest management through biocontrol at Cardamom Association, Vandanmedu, Idukki, Kerala.
- Awareness program on Pest management through BioControl, Dindigul Organic Farmers Association.
- BioControl Awareness Program for farmers at Karpagathur organic farm, Kanyakumari.
- BioControl demonstration at Krishi Vigyan Kendra, Tenkasi.
- Demonstration of Pest Management Technique through BioControl among Tirunelveli farmers, at AC&RI, Killikulam.
- BioControl demonstration though KISAN GOSTHIS, Agricultural department at Panagudi, Thoothukudi.

Association & Key takeaways from MANAGE

Our association with MANAGE was very fruitful for our venture as MANAGE helped us in striking collaboration with central agricultural research institutes for the promotional activities of predators and parasitoids approach. We also benefitted from the marketing network that we got connected through this training program.

For a newbie like me the training program experience was rewarding with learnings about financial management & business handling. It was here that I was able to comprehend the need for intellectual property rights and through MANAGEs support registered my trademark, logo and now in the process of filing patent.

Vision as an Entrepreneur

With Pan India expansion in the offing, Mr. Jayasheelan visualize Crysops BioControl developing a strong footing all over the country with state wise branches. Endeavoring to free the food cycle from the detrimental effects of chemical pesticides & promote production of pesticide free agro-products, the startup envisions a complete overhaul in pest chemical treatment by promoting Bio treatment.



Citation

Saravanan Raj and Zeenat Shana (2021). Crysops Biocontrol, MANAGE-Centre for Innovation and Agripreneurship (CIA), National Institute of Agricultural Extension Management (MANAGE), Hyderabad, India.



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