PPP initiative

Nimish Vora, M. M. International

OUTLINE





The Indian Spice Industry



Challenges...



- Frequent changes in Food Safety Laws in importing & producing countries.
 - Stringent
 - Sometimes unclear



Challenges...



- Mycotoxins, MRLs Microbiological and Micro sanitary No harmonized standards
- > Product recalls huge product liability claims.
- > Mycotoxin Not science based 2 ppm to 30 ppm
- > 430 PR test in EU
- > MRL only for few Chemicals in the US
- > Illegal dyes
- Supply scarcity

WSO Objectives

Food Safety

- Free from All Contaminations
- Safe for Human/Animal Consumption

Food Security

- Enhance Productivity
- Reduce Wastage

Sustainability / GAP

Socio – Economic & Environmental

Collaborations

- Collaborative efforts & Open dialogue
- Industry & Govt. Bodies



Collaboration: Public Private Participation(PPP)



Initiated by WSO & ISFEA

Objective:

- To promote sustainable agriculture. This required an extensive ground work and support farmers, Industry, agronomist, scientists, and Spices Board.
- 2. To be the preferred Spice Supplier

Collaboration: Public Private Participation(PPP)







IPM CUMIN PROGRAM

- Crop status- Vegetative Stage
- ✤ 600 MT PR compliant Cumin
- Agro-extension team involved in education, dissemination of knowledge on chemicals and MRLS & monitoring of IPM schedules
- Risk based categorization of farmers and out put to enable elimination of high risk groups
- ✤ Sample evaluation



IPM CUMIN PROGRAM



Collaboration Continues... **IPM CUMIN PROGRAM** Barmar dist, Rajasthan PUNJAB ✤ 144 farmers 1500-2785 acres DELHI Expectation 500-600 tons of IPM Grade Cumin (EU, Mandawa & Japan) Bikaner Agra ✤ Agro-extension team of 6 staff Jodhpur Pushkar Involving the services of a professional consultant for Agro extension management and IPM program Involving the services of an expert scientist from locality GUJARAT MADHYA PRADESH



- Targeted Field visits throughout the growing period of 100-110 days.
- > Soil preparations, sowing, watering.
- > Spraying, harvest, drying and
- > Dispatch to designated warehouses
- Visits to suppliers of farm inputs to check usage of unwarranted chemicals.
- Farmers that have old stock of banned chemicals have been paid for their costs and their chemical stocks destroyed.



- * A robust traceability has been designed for this project.
- > Entire district has been divided into 2 sub divisions.
- Each of these sub divisions is further divided to record their input.
- Material received from each of these will be stored separately
- > Tested for compliance with MRL of developed western markets.

Scope of Work



WSO: Technical Support ISFEA: Financial Support / Buy Back Spices Board: Support by Subsidies for post harvest practices

Agronomists: monitor traceability and Farmer details Inputs from Scientists: On chemicals, dosages, validation of pertinent chemicals ,MRL's, Test Methods and chemical usage at times of disease outbreak.

IPM CUMIN PROGRAM

Evaluating Farmers

- Pesticide residue control Program
 - Clear understanding of regulation and advise on IPM based on regulations
 - Categorizing according to use of MRL and chemicals used
 - High Risk
 - Medium Risk
 - Low Risk
 - Risk analysis based on Persistence index of each chemical





IPM CUMIN PROGRAM

Traceability from farmer

- Farm and Lot traceability
- Testing program to support lot traceability

Extension works

 Qualified Agro extension team managed by professional agro extension consultants

Farmer coordination

- Services of a local scientist
- Liasoning with Governmental agencies and Boards





IPM CUMIN PROGRAM

- Training Program at Barmer District in Rajasthan
 - RM Quality Specifications
 - POP and IPM Schedules
 - Knowledge on chemicals and availability of alternate and safe chemicals
 - Post Harvest Handling
 - Local storage and lot making
 - Knowledge on Common Diseases and control measures based on IPM





IPM CUMIN PROGRAM

Training Program at Barmer

- Application of Pesticides
 - $_{\circ}$ Need based
 - Spot Vs wide spread
 - Physical controls and biological controls
- Waiting Period
 - Persistence index of each chemical
- Recommended Dose to meet MRL
- Alternate Chemicals



Farmers Participation

- Willingness to learn and progress
- Attendance in meetings/Trainings
- Willingness to follow practices laid down by Scientists

Way Forward...





Way Forward...



More area under farming

- Intensive cultivation "Net Farm Return"
- Extensive cultivation Non-Traditional area

Research Support

- New cultivars disease & insect resistance, high productivity
- Hasten the lab to land implementation process measurable
- Enhance organoleptic properties & active ingredients

Way Forward...



- Codex standards
 CCSCH, CCPR & CCMAS to be used as guide
- Ban all potentially harmful Chemicals Organochloride
 and Organophosphate
- Stricter control on registration & use of Pesticides
- Enable and enrich farming community with knowledge and technology to improve their livelihood

SSI/IDH/WSO



- WSO to work as a catalyst to promote Sustainable program in India
- Training program jointly by IDH & WSO
- Certification from organization like Rain Forest Alliance
- Marketing/buying support from Global partners
- Dialogue with IOSTA to implement IOSTA GAP



Thank You...