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SECTOR SPECIFIC INTERVENTIONS FOR IMPROVING PRODUCTIVITY OF MAJOR CROPS

Dr Shelke P. P.¹ and Dr Murai Atul. M.²

1. Senior Scientist and Head, Krishi Vigyan Kendra, Tondapur Tal. Kalamnuri Dist. Hingoli. (M.S.)
2. Subject Matter Specialist, Agricultural Extension, Krishi Vigyan Kendra, Tondapur Tal. Kalamnuri Dist. Hingoli. (M.S.)

Correspondence e-mail: kvkhingoli@gmail.com

INTRODUCTION AND INFORMATION ABOUT HINGOLI DISTRICT

Agriculture is backbone and primary source of livelihood for both men and women in our India. Agriculture can be considered as a system where crops are grown and other enterprises that are compatible and complementary with each other. The farming system includes all components of land such as soil, crops, livestock, water, insects, labor, and other resources. The Hingoli district situâtes in Marathwada région of Maharashtra State. Whereas, Hingoli district has 610 Kharif villages, area about 424589 ha and 101 Rabi villages and area 18739 ha. The average annual rainfall received in district is about 908 mm and climate of region is hot & dry with temperature ranging from 11.2⁰C to 41.6⁰C. The district suffers from various natural calamities like climate change, flood, droughts and non-season rainfall and changes in temperature, population explosion, urbanization and fragmented land holding in rural areas.

ABOUT KVK HINGOLI

Krishi Vigyan Kendra, Tondapur Tal. Kalamnuri Dist. Hingoli was established during 2002, acting as a knowledge resource centre for the district. KVK is acting as instructional institute for farmers with various demonstrations and production units like vermicompost/vermi-wash unit, compost unit, apiculture unit, rain and roof water harvesting

structure, bore well recharge unit, dairy unit, goat unit, azolla production unit, nursery and mother plant block, hydroponics, seed production activities, etc. The turmeric crop was introduced in Hingoli as cultivation on bed with drip irrigation through regular and constant efforts of KVK Hingoli.

KVK, Hingoli has also succeeded in popularizing first elite soybean (JS-335, MAUS-71, MAUS-81, MAUS-158, MAUS-612) varieties in Pigeon Pea (BSMR-736, Badnapur-2, BSMR-736, BSMR-853, BDN-708, BDN-711, BDN-716, BDN-2013-41) green gram (BN-4, Kopargaon, BPMR-145, BM-2002-01, BM-2003-02), black gram (BDU-1,TAU-1), sugarcane (Co-86032, Co-671 and Co-94012), chickpea (BDN-9-3, BDN797, Phule 4-5, Vijay, Vishal, Digvijay, Annigeri-1, Jacki 9218, Phule Vikram and Kabooli), Sunflower (Modern, SS-2038, LS-8, LS -11) Sesamum (JLT-7, Punjab-1, AKT-64, Sorghum (Parbhani Sweta, Parbhani-Moti, Banana G-9, Turmeric IISR Prathiba, Selam and Phule Swarupa.

While in turmeric crop raised bed planting method and micro-nutrient formulations such as Turmeric Special (IIHR), was popularized by KVK Hingoli. Use of pulse-magic in pigeon pea, nipping in pigeon pea, IPDM in turmeric and management of White grub. IPM practices were used in pigeon pea and chickpea, green gram, black gram, soybean, banana, marigold, sunflower, safflower, and cotton. KVK Hingoli trained the farmers in processing and packaging of millets and providing quality seeds of soybean through seed production activity. To identify farmers needs and problems KVK adopt new extension methodologies like PRA survey tools and techniques, online/offline meeting of Krishi Vigyan Mandal, transfer of information through face book and what's app groups, upload videos on YouTube channel and capacity building for ICT application other various social media and which helps to attract farmers towards KVK. Recently, KVK Hingoli has bagged Zonal Best KVK Presentation Award during Annual Zonal Workshop held in Sambhaji Nagar District on 28-30 July 2023 to Dr. P. P. Shelke Senior Scientist and Head KVK, Hingoli.

1. Sector Specific intervention by KVK, Hingoli

1.1 Field Crops

- Introduction of new varieties in soybean KDS-726 and JS-335 which helped farmers to get assured yield.

- Replacing local varieties with improved varieties of Pigeon Pea (Arhar) BDN-716 and BDN-711.
- Varietal demonstration of Phule Vikram and JAKI-9218 variety in chickpea crop
- Promotion of secondary and micronutrient in particular sulphur, zinc and boron has increased the quality as well as yield of soybean and pulses.
- Wilt Management by seed treatment with Bio Capsule based Nano Technology in Chickpea Wilt Management by seed treatment with Bio Capsule based Nano Technology in Chickpea.
- Flower/Pod Drop Management in Pigeon pea.
- Front line demonstration on Integrated Pest Management packages inhalations of pheromone traps pod borer & bird perches in chickpea
- The technologies popularized by KVK use of broad bed furrow method in soybean crop for maintained seed population/moisture and improve productivity level of farmers.
- Nipping (Eco-friendly) practices used in pigeon pea for getting a greater number of pods/plants.
- Adoption of Integrated Farming System in kharif and rabi season with suitable cropping pattern to increased productivity of crops in hingoli district.
- Demonstrations and production of vermicompost and vermi-wash unit, compost unit and jivamrut among farmers.
- Cluster Front Line Demonstration on integrated crop management practices for oilseed and pulses crops.
- Provide on-spot guidance, need based training and transfer of technology through various social media platforms.

2. Horticultural Crops

- Front line demonstration on introduction of Bhima Shakti variety in onion crop.
- Demonstration and popularized use of spray formulation of Banana Special.
- Integrated Nutrient Management as use of spray formulation IIHR Vegetable Special in Tomato.
- Popularizing foliar nutrition spray formulation of IISR Turmeric Special in turmeric for obtaining more income to farmers.

- Integrated Pest and Diseases Management regarding management of rhizome fly, white grub, and rhizome rot in turmeric.
- The introduction of sequence cropping system with short duration vegetables crops was useful in increasing farm income.
- Replacing the chickpea with rajma crops has helped to realize the doubling farmer income.
- Demonstration of elite varieties in turmeric crop Selam, Turmeric IISR Prathiba, Selam.
- Promotion of use of crop cover in Muskmelon.

3. Animal Husbandry

- Management of animal health improving quality as well as productivity of milching animals through demonstration of Integrated Dairy Management by feeding of mineral mixture.
- Establishment of fodder cafeteria of improved varieties Phule Jayant, Yashwant, DHM-lucerne, berseem, Maize etc. to overcome scarcity of fodder to farm animals.
- Rearing and demonstration of improved breeds of Goat (Osmanabadi), Cow (Gir), Poultry (Giriraj/Vanraj/Gram Priya).
- Encouraging farmers to adopt balanced nutrient management through enrichment of fodder, silage making and azolla production.

4. Farm and Non-Farm Enterprises

- Seed production through Krishi Vigyan Kendra, Tondapur especially in soybean crop.
- Encourage the women beneficiaries through Self Help Group to get involved in income and employment generating activities viz. papad making, turmeric powder preparation and preparation of millets products.
- Demonstration on household food security by kitchen gardening.
- Creation of awareness and demonstration on vegetables solar conduction dryer.

CONCLUSION

Hingoli district had maximum area under rainfed condition in such circumstances cluster front line demonstration, front line demonstration, training programme and technology disseminated through various media platform by KVK, Hingoli with active participation of farmers is economically viable, easy to operate, feasible, having potential to create employment opportunity, increases annual income and improve standard of living of rural families. The GOI (Ministry of Skill Development and Entrepreneurship) sponsored (ASCI) training program motivated farmers to adopt new technologies and acquire knowledge. In future such attempts should be undertaken in other areas for ultimate progress and development of rural society.

REFERANCES

Report on Compilation of Farmers Data who succeeded in doubling of income during 2016-2022. (2022) Dr. Shelke P. P. Krishi Vigyan Kendra, Tondapur Dist. Hingoli.