

Country Report – Pakistan

Pakistan Agriculture

Agriculture is the backbone of the economy of Pakistan. It is the main source of food, cloth and shelter in the country. Agriculture has vital role in rural sociology and provides employment to around 70 percent of population. Agriculture caters raw material to agro-based industries. The country is considered first ranked in agricultural production. Export earnings contributes in foreign exchange and Gross Domestic Production (GDP).

Department of Plant Protection

Agricultural productivity in Pakistan is prone to problem of pests and diseases that cause 20-50% percent economic losses. The Department of Plant Protection (DPP) with its well-versed wings viz. Locust Control, Arial Pest Control, Pesticides Management & Registration, Plant Quarantine and Planning Wings performs regulatory, advisory, research and extension roles in the arena of plant protection in Pakistan.

The major functions of Department of Plant Protection are as under:

Regulatory

- Enforcement of Pakistan Plant Quarantine Act 1976 Pakistan Plant Quarantine Rules 1967 and the International Standards for Phytosanitary Measures (ISPMs) developed under WTO-SPS negotiated International Plant Protection Convention (IPPC)
- Enforcement of Agricultural Pesticides Ordinance 1971, Agricultural Pesticides (Amendment) Act 1992 and Agricultural Pesticides (Amendment) Act 1997

Research

- Focus/ targeted research on various pest diagnostics and pest mitigation measures in trade commodities (vapour heat treatment, hot water treatment, cold treatment, irradiation treatment etc.)
- Bioassay

Survey and Control

- Locust survey and control in desert areas in coordination with FAO and locust affected countries
- Control of locust by ground and aerial operation
- Aerial Pest Control in orchards and field crops

Advisory

- Advise the Government of Pakistan on all aspects of plant protection including international obligations

Plant Quarantine in Pakistan

In Indo-Pak subcontinent, the plant quarantine work was formally initiated with promulgation of *Destructive Insect and Pests Act, 1914*. Pakistan became signatory of the International Plant Protection Convention (IPPC) in 1954. The Department of Plant Protection, Government of Pakistan (DPP) is functioning as National Plant Protection Organization (NPPO) for Pakistan. The country evolved *Pakistan Plant Quarantine Rules, 1967* in light of Destructive Insect and Pests Act, 1914 and later on promulgated its own Act with the title: *Pakistan Plant Quarantine Act, 1976*. The mandate of DPP is to enhance the phytosanitary (plant health) capabilities of the country and to check pest and disease spread on crops. With signing of WTO-SPS negotiated IPPC in 1997, this mandate is to facilitate trade of agricultural commodities under WTO agreement on Sanitary and Phytosanitary (SPS).

DPP regulates the country's international trade of agro-commodities in accordance to the guidelines/ International Standards for Phytosanitary Measures (ISPMs) through its Plant Quarantine offices established on all seaports, international air terminals, dry ports and international borders. All the imports are subjected to Pest Risk Analysis and inspection/ treatment prior to issuances of Import Permits (IPs) and Release Orders (ROs). The exports are regulated by issuance of Phytosanitary Certificates (PCs) according to the requirements and trade agreements signed with the importing countries.

The DPP has signed 24 MoUs/ Protocols with various countries on high-risk commodities to streamline the bilateral trade of agro-commodities.

Locust Control

By keeping constant vigil through Locust Outposts established in interior of the deserts, regular field service, monitoring by e-locust /geographical information system (GIS), ground operations and Pak- Iran and Pak-India boarder meetings under FAO programmes, the Department of Plant Protection safeguarded 300,000 square kilometers area of Balochistan, Thar and Chohlistan deserts from catastrophic out breaks of locusts during the last five years.

Aerial Pest Control

Through aerial spray operation programmes, the Department of Plant Protection kept under control Dubas bug (*Ommatitus lybicus*) in the 13,000 acres Date Palm growing area of Balochistan during the last five years.

Pesticide Registration

To avoid any shortage of pesticides, cope resistant pests, encourage local industry, save biodiversity and environment and ensure import, formulation, refilling-repacking and sale of quality and newly developed and safe pesticides at cheaper prices, the Department of Plant Protection is regulating the import and registration of agricultural pesticides in the country.

From 1980 to January 2008, mostly the multinational companies had a monopoly in pesticides market for supply and price, so, the farmers had to pay exorbitant prices whereas, during last seven years, local companies beside the multinational have been encouraged to do the pesticides business. This triggered 40 to 50 % decline in prices of pesticides and 30 to 40% increase in yields of wheat, cotton, mango, citrus and vegetables.

For the first time, in 2012, locally manufactured/ formulated pesticides with local toxic, residual, bio-efficacy, Post Harvest Interval studies were accorded registration to promote local manufacturing industry and local research institution, development of new local products that best suits to local conditions and emphasize on local toxicological, residual and Post Harvest Interval, bio-efficacy studies for making products more effective against pests, environment friendly and saved 40 to 50% foreign exchange being spent on import of pesticides whereas, previously, the country was fully depending upon exporting countries.

Capacity Building of Pakistani Exporters and Importers

Capacity Building of Pakistani Exporters and Importers in compliance of WTO - Sanitary and Phytosanitary (SPS) regime/ International Standard for Phytosanitary Measures (ISPMs) through:

- i. Signing of MOU between DPP and All Pakistan Fruit and Vegetable Exporters, Importers and Merchants Association (PFVA)
- ii. Action Plan for Mango Export 2014
- iii. Organizing 03 Awareness seminars/ workshops;
- iv. Internship of 22 students of University of Karachi
- v. Surveillance programmes for development of pest free areas for potato in district Okara
- vi. On-farm supervision of potato growers
- vii. Registration of 131 mango orchards in Sind and Punjab for export
- viii. Registration of 29 phytosanitary HWT plants and 33 packing houses for export of mango
- ix. Establishment of 02 Vapour Heat Treatment (VHT) plants in 2015 (one in Karachi and other in Sahiwal
- x. Survey of about 250 orchards for export of Kinnow in Bhalwal, Sargodha.
- xi. Initiation of sea-freighted export of fresh mango fruit to European Union countries notably United Kingdom by opting System Approach based Controlled Atmosphere (CA) technology in collaboration with Australian ASLP Mango Project and Sind Mango Growers & Exporters (SMGE) in the on-going mango export to economize exports and earn maximum foreign exchange.

Approved Projects

DPP remained successful in getting approval of the following projects:

Export Development Fund (EDF) – Funded Projects

- i. Development and Implementation of Good Agricultural Practices Standards for Pakistan, Following SAARC-GAP Model (SAARC-Pak GAP)
- ii. Establishment of Common Facility Packing Houses in Karachi, Lahore, Islamabad, Peshawar and Quetta for Pre-Export Quarantine Inspection and Certification of export consignments to ensure pest free exports from Pakistan.

PSDP- Funded Projects

- i. Strengthening and Up-gradation of Plant Quarantine Laboratories, Malir Halt, Karachi
- ii. Strengthening and Up-gradation of Federal Pesticide Reference and Testing Laboratory, Malir Halt, Karachi

Projects under Consideration

- i. Feasibility Study has been conducted for operationalizing commercial scale Vapour Heat Treatment (VHT) Plant in Karachi.
- ii. Processing and Packaging of Frozen Food By Individually Quick Frozen (IQF) Technology
- iii. Strengthening of Technical Information Support System of Department of Plant Protection by Linking Quarantine Outposts with WeBOC System of Pakistan Customs

Revamping of Regulations

- Draft of SRO For Revision of Fees of Plant Quarantine Inspection and Certification has been submitted to the government.
- The government on recommendation of the DPP to regulate exports as per the international requirements has issued a SRO for Imposition of Ban on Use of Wooden Boxes for export perishable fruits and vegetable.