

## Good Agricultural Practices (GAP): For Creating New Market Opportunities for Farmers and Exporters in Developing Countries

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### SUMMARY

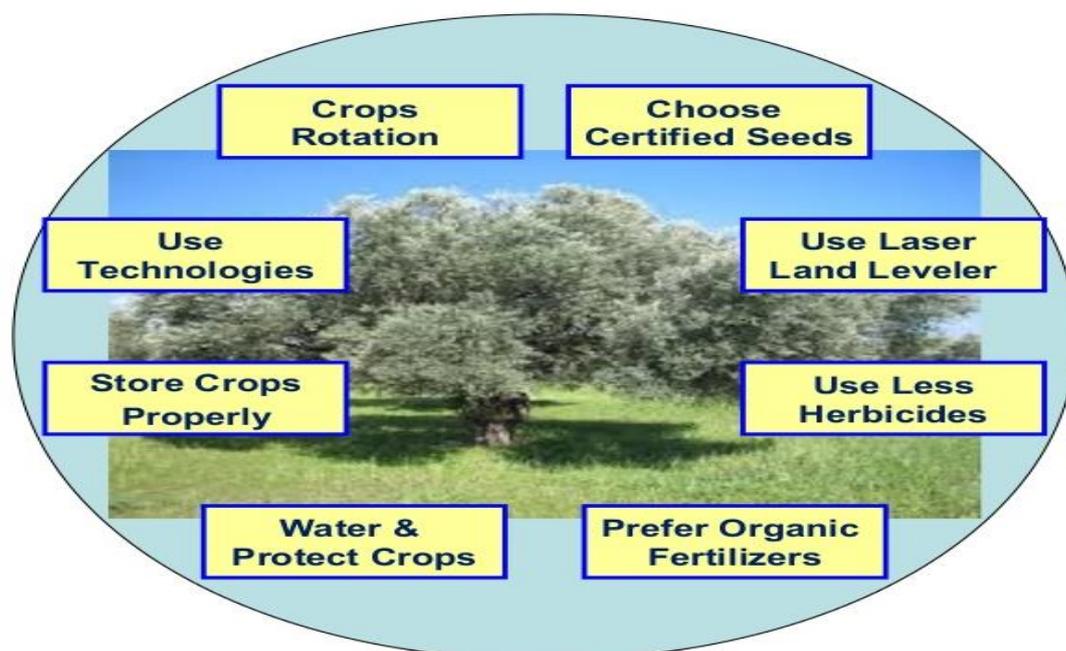
Good Agricultural Practices (GAP) are "practices that address environmental, economic and social sustainability for on-farm processes, and which result in safe and quality food and non-food agricultural products". GAP is a voluntary audit program created by the USDA to help farmers demonstrate to buyers that they are adhering to industry standards. GAP covers all aspects of produce production on the farm, from planting through postharvest handling, as well as transportation to market and sales to the public. Good agricultural practices (GAP) appears to be the emerging global norms for agricultural producers. GAP standards are being enforced by government regulations, but also by market forces, such as food processors. GAP is broader than just the safety of the final food product; GAP also imposes expectations on agricultural producers in terms of their environmental impact, labour practices, and possibly "carbon footprint".

### INTRODUCTION

Good Agricultural Practices (GAP), economically, socially, and environmentally responsible methods and technologies for the raising and marketing of agricultural and horticultural products. Good agriculture practices aim to deliver to the consumer healthy, safe high-quality food, and non-food products in manner that permits sustainable yields and ensures the livelihoods of producers and processors while protecting or enhancing the environment. Guidelines for good practices can cover all aspects of farm production—whether in the field, in a greenhouse, or in a barn—including crop and seed choice, watering and fertilization, pest and disease control, disposing of manure, harvesting, and handling after harvest, in food processing, and in a retail setting. Recommendations have been developed specifically for various crops and livestock, such as avocados, tobacco, and swine, and for different regions and environments.

#### What are GAP codes, standards and regulations?

Good Agricultural Practices (GAP) codes, standards and regulations are guidelines, which have been developed in recent years by the food industry, producers' organizations, governments and NGOs aiming to codify agricultural practices at farm level for a range of commodities.



### **Crop Rotation Systems**

Sequence crops by selecting pest host relation why do GAP codes, standards and regulations exist?

These GAP codes, programmes or standards exist because of:

- Growing concerns about food quality and safety worldwide.
- Fulfilment of trade and government regulatory requirements.
- Specific requirements especially for niche markets.

### **Objectives**

- Ensuring safety and quality of produce in the food chain.
- Capturing new market advantages by modifying supply chain governance.
- Improving natural resources used workers' health and working conditions to creating new market opportunities for farmers and exporters in developing countries.

### **The benefits of GAP codes**

- Standards and regulations are numerous, including food quality and safety improvement.
- Facilitation of market access.
- Reduction in non-compliance risks regarding permitted pesticides, Maximum Residue Limits (MRLs) and other contamination hazards.

### **GAP related to Crop Protection**

- Use resistant cultivars and varieties.
- Crop sequences, associations and cultural practices.
- Biological prevention of pests and diseases.
- Maintain regular and quantitative assessment of the balance status between pests and diseases and beneficial organisms of all crops.
- Adopt organic control practices where and when applicable.
- Apply pest and disease forecasting techniques where available.
- Determine interventions following consideration of all possible methods and their short and long-term effects on farm productivity and environmental implications. This will allow the minimizing of agrochemicals, in particular, to promote Integrated Pest Management (IPM).
- Store and use agrochemicals according to legal requirements of registration for individual crops, rates, timings, and pre-harvest intervals
- Ensure that specially trained and knowledgeable persons only apply agrochemicals.
- Ensure that equipment used for the handling and application of agrochemicals complies with established safety and maintenance standards.
- Maintain accurate records of agrochemical use.
- Identify the GAP in each protection method.
- Selected crop for rotation in order to break the life cycle of pest (Jowar should be rotated with pulses to combat striga weed).
- The selected crop for rotation should not be the food of previous crop pest.
- To select appropriate crops for rotation:
  - Analyze the pest habitat
  - Follow forecasts
  - Monitor pest and natural enemies

### **Privilege Resistant Species**

- Cultivate plant varieties, which are less prone to pest attack.
- The resistant varieties reduce production cost.

- Pest resistant transgenic crops developed for specific pest can be used. This is new avenue for reducing pesticide load.

### **Seeding Techniques**

- Depth of placement
- Method of placement
- Time of placement
- Seed treatments
- Managing the above based on pest nature will give good results

### **Promote useful Animals**

- Keep good predator population.
- Promote growth of beneficial insects.
- Create an environment congenial for predators; e.g. keeping bird perch in the field.
- Identify the useful animals and study their habitat for providing the required environment.

### **Observe and Control Populations**

- Follow forecast-short term and long term.
- Study habitat of pest and congenial weather.
- Accordingly take necessary precautions to manage pest.

### **Give Priority to Mechanical and Biological Measures (Instead of Chemical)**

- Get the full knowledge about botanical pesticides.
- Get the knowledge on available parasites and predator/friendly insects and pests.
- Accordingly develop action plan for mechanical and biological measures.
- **Use non cash inputs:** Saves money.
- **Use information on plant protection:** Analyse spatial and temporal distribution and trend analysis.
- **Monitoring of performance** through taking notes each year/season.
- Keep the pest management record along with season, weather and other agriculture activity.
- Document the pest load and control achieved
- Use this experience for future planning.

### **Precision farming:**

Use precision farming modules and apply Information Technology (IT) to economize and for effective monitoring.

Good Agriculture Practices help the farmers to make use of the opportunities available in International Markets for selling their products and realising better farm profits.

### **CONCLUSION**

Therefore, I have concluded that good agricultural practices are important for the most important thing that is human health followed by the economic value of the products. All the main factors should be always kept in mind as without this the possibility of contamination of food increases.

### **REFERENCES**

TNAU portal  
FAO website  
News Papers  
Wikipedia