**ANDHRA PRADESH STATE ORGANIC PRODUCTS CERTIFICATION AUTHORITY (APSOPCA), GUNTUR-522034**

**RESIDUAL MANAGEMENT SYSTEM**

There are specific conditions for use of agrochemicals:

* 1. This condition means the product must only be used according to the label directions (i.e., no off-label use is allowed). In this case all label directions (including pests targeted) are mandatory
  2. This condition places the obligation on the user to ensure that residues in the crop do not exceed the set or default MRL.
  3. It is important to note that in general, the use of agricultural compounds on animals is prohibited.
  4. The label should be read fully even when using agrochemicals to ensure compliance with other directions such as transport, PPE, handling, storage, spray drift, buffer zones, bee safety, tracking and record keeping instructions.

1. **Maximum Residue Limit (MRL)**
2. The main purpose of setting a MRL is to ensure that the best methods of crop production – known as Good Agricultural Practice (GAP) – are being used to keep residues in food as low as possible. The MRL is then set at that level so that if residues exceed this level, it indicates GAP and label directions have not been followed.
3. The Food Act requires that all crops produced in India comply with the MRL Food Notice and it is illegal to sell food with residues above the India MRL (or default MRL if none is set). MRLs are one tool used to monitor if GAP is being followed during food production. MRLs are outlined in the regulation Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011 and amendments thereunder. 5% of the MRL Value is applicable for organic food under Food Safety and Standards (Organic Foods) Regulations, 2017 for specific crops or crop groups and compounds.
4. Where a specific MRL is not set, the default MRL, as prescribed by FSSAI applies. The Government of India’s Food Safety and Standards Authority published a clarification to the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011, that all agricultural food products and associated processed food categories that do not have fixed insecticide maximum residue levels will have a default limit of 0.01 mg/kg. The clarification notes that the default limit does not apply to thermally and chemically processed foods.
5. Producers must undertake a risk assessment, before the agrichemical is applied, to determine the time between the application and harvest to be sure they will not exceed the MRL at harvest (either set or default).
6. Compliance with the MRL regulation is important for a range of reasons, not only to comply with India law, but also to ensure access to certain markets. Overseas MRLs for exported produce may be different (i.e., higher, or lower or no MRL at all) to those set in India. However, in all cases produce grown for export markets must first meet India requirements, even where the India MRL is lower than what may be set overseas.
7. Unless exporter have Exporter manufacturing category specifically mentioned in his License issued by FSSAI under FSSA 2006, in such cases non-confirming products cannot be sold in India, in such cases, it is necessary for producer to declare on record that the crop is cultivated only for export market and not for India market.
8. **Residue Management System (RMS) / Residue Management Plan (RMP)** 
   1. **Residue Management System (RMS)**

In the IndG.A.P. scheme, the scheme requires the producers to be a part of RMS or as RMP mandatorily. The said document details the requirements of RMP is being mandated by APEDA, the apex agro export promotion body of the Government of India.

Mandatory minimum criteria of a Residue Monitoring System (RMS) is as under.

* + 1. **Background**
  1. In the framework of IndG.A.P. control point and compliance criterion and based on the outcome of the risk assessment, residue analysis or participation in a second- or third-party plant protection product residue monitoring system is required.
  2. In order to ensure a harmonized interpretation and level of consistency across the residue monitoring systems used by producers, the following have been established as the minimum requirements that all residue monitoring systems shall comply with in order to be considered compliant with the IndG.A.P. requirements.
  3. Having these criteria defined also makes it possible to reduce the need for multiple assessments of one and the same residue monitoring system, which may be servicing several IndG.A.P. producers
  4. **First, Second and Third-Party Sampling**
  5. First-party sampling: When the producer or a producer group member takes the product sample from its own production. For certification, the first-party sampling (self-sampling) is acceptable, but an RMS cannot be based on first-party sampling.
  6. Second-party sampling body: The sampling organization is a 2nd party sampling body when it is a separate, but identifiable part of an organization that is involved in production, supply, purchase and/or or ownership of the products sampled by the RMS. Second-party sampling bodies supply sampling services only to their related organization. A second-party sampling body may form a part of a user or supplier organization, or an intermediate or end customer of the products sampled.
  7. Third-party sampling body: The sampling organization is a 3rd party sampling body when it is a separate organization that is not involved in production, supply, purchase or ownership of the products sampled. It shall demonstrate that it does not have common ownership with the sampled producer, nor have common ownership appointees on the boards (or equivalent) of the organizations, is not directly reporting to the same higher level of management, does not have contractual arrangements, informal understandings or other means that may have an ability to influence the outcome of the sampling.
     1. When an RMS uses different combinations of the above; it shall be classified according to the lower level. When the APSOPCA publishes the evaluated RMS, the following are included:
     2. Residue monitoring system name
     3. APSOPCA performing the evaluation
     4. Sampling type (second party sampling/third party sampling)
     5. Link or contact details where to get information of producers/ UINs under the scope of the RMS
     6. Date of evaluation and validity (valid from and valid to date)
  8. **Basic Requirements** 
     1. The objective of the residue monitoring system is to provide evidence that the use of plant protection products by producers complies with the MRLs in the country of destination of the produce.
     2. The system shall be independent from the participating producer(s). A producer group as defined by IndG.A.P. is allowed to operate its own monitoring system.
     3. The Producer group shall keep current data of the participating producers. This data shall at a minimum include producer name, identification code or UIN where available, address and crop specifications (i.e. product and area).
     4. The producer group and the participating producer shall have a mutual agreement on service conditions. These conditions shall specify rights and duties regarding the usage of the monitoring system.
     5. Registration is producer and crop specific. The producer needs to arrange other sampling means for those products not included in the RMS and the APSOPCA needs to evaluate that during the inspection accordingly.
  9. **Risk Assessment**
  10. A risk assessment shall be carried out by the operator of the RMS, not by each producer participating in it.
  11. The risk assessment shall take all relevant factors into consideration (e.g., crop/product, climatic conditions, history, active ingredients (AI), size of company and number of Production sites, continuous harvest, country of production PPP registration restrictions, country of destination MRLs, etc.). Reference to sources (data) as evidence for an adequate risk analysis is required. The most critical period and locations should be determined for each crop.
  12. The sampling frequency (number of samples to be taken per crop per season) shall be based on this risk analysis.
  13. The analysis method to be used by the laboratories shall be determined. The range of AI to be analyzed by the laboratory shall be defined based on a crop specific risk assessment. The risk assessment shall take into consideration:
      1. PPPs that could have been applied on the crop
      2. PPPs actually applied
      3. Any other contaminants (e.g., persistent environmental residues).

The risk assessment shall be carried out annually and result in an annual monitoring plan that includes the products, number of participants, number of samples, period of sampling, and type of analysis.

* + 1. Sample Taking: Sampling shall take place according to the Food Safety and Standards (Laboratory and Sampling Analysis) Regulation, 2011.
    2. Inert bags shall be used which shall be identified correctly. Samples shall be traceable to individual producers. Preferably, the sampling location shall also be recorded (e.g. lot number, field number, greenhouse number, etc.)
    3. Sampling shall take place from harvestable or harvested produce.
    4. Mixed or pool of samples that contains sampled materials from more producers in sample is not allowed. Composite samples are only allowed on a risk assessment basis and only a lot is made by mixing the produce and sold as such to customers for further processing. Additional reference can be sought from grouping of crops as mentioned by CIBRC.
  1. **Testing Results** 
     1. The laboratory that carries out the produce analysis shall be ISO 17025 accredited for the relevant testing methods (e.g. GCMS, LCMS).
     2. The test results shall be compared with the applicable legislation (country of production and/or country of destination).
     3. The test results shall always be reported in writing to the producer concerned.
     4. The test results shall be traceable to the farm concerned. Test carried by producer’s clients are only valid if they are traceable to producers.
     5. **Plan of Action**
     6. Producers shall have a procedure (action plan) for situations when MRLs are exceeded or use of illegal/not approved plant protection products is detected.
     7. Producers shall keep records of all actions carried out in connection with incidences related to plant protection product residues.
     8. The RMS shall inform the producer and the APSOPCA in case of an exceedance of the legal limit. This shall not lead to an automatic sanctioning of the producer; however, the APSOPCA shall investigate each case.
  2. **Records**

1. Records shall be kept for a minimum of 2 years and they shall be available during the inspection.
2. Records shall include:
   1. System documentation including the risk assessments
   2. Annual update of the risk assessments including the determination analysis method, the list of active ingredients to be analyzed
   3. The annual monitoring plan
   4. Analysis reports
   5. Records of follow up actions
   6. Communication with producers
   7. Annual summary of the result
   8. **Residue Management Plan (RMP) as per APEDA**
   9. APEDA had introduced the residue monitoring plans & Horti-net system for traceability on its website, if producer is intending to export the products under IndG.A.P., then he shall register farm on Horti-net.
   10. The farm registration documents shall be verified by inspector, on subsequent steps residue test report in compliance to destination markets mentioned in application form and test reports shall be checked before certification is granted.