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GOVERNMENT OF KERALA

Abstract

Agriculture Department – Common Judgment of the Hon'ble Kerala High Court in WP (C) 34602/2017, WP (C) 1355/2019, WP (C) 20408/2018, WP (C) 29983/2018, WP (C) 37983/2017 and WP (C) 38441/2017 - Complied with - Orders issued.

AGRICULTURE (NCA) DEPARTMENT

G.O.(Ms)No.64/2020/AGRI Dated, Thiruvananthapuram, 17/08/2020

- Read 1 Common Judgment of the Hon'ble Kerala High Court dated 06/03/2019 in WP (C) 34602/2017, WP (C) 1355/2019, WP (C) 20408/2018, WP (C) 29983/2018, WP (C) 37983/2017 and WP (C) 38441/2017.
- 2 Letter No.A8/192/2018/KSBB dated 02/09/2019 of the Kerala State Biodiversity Board, Thiruvananthapuram
- 3 Letter No.GA/D2/22178/2020 dated 27/04/2020 of the Registrar, Kerala Agricultural University, Thrissur
- 4 Letter No. TD (2)-33230/2019 dated 21/04/2020 of the Director of Agriculture, Thiruvananthapuram

ORDER

The Hon'ble Kerala High Court in its common judgment read as first paper above has directed the State Government to study the final report of the Kerala Biodiversity Board before the Court and issue necessary and required instructions incorporating the pesticides, insecticides, weedicides and hormones that can be used, its dosage and the manner in which it, has to be procured and used by the farmers and the orders to be issued by the Government shall advert to the specific recommendation of the Kerala Biodiversity Board, also stipulate the officers in hierarchy, who will be in

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charge of ensuring that the directions are implicitly comply with and also will provide for penalties or such other detriment that should visit farmers or persons who violate such directions thereafter.

2) As per the letters read as 3rd and 4th paper above, the Registrar, Kerala Agricultural University and the Director of Agriculture have submitted their reports respectively.

3) Government have examined the matter in detail and by considering the direction of the Hon'ble High Court and also considering the ambient environment, safety, protection of health of entire living things and to minimize the use of hazardous chemical pesticides in agriculture the following guidelines are issued by appending GAP (Good Agricultural Practices) and Good Agricultural Standards as **Appendix I** and list of agrochemicals as **Appendix II** for strict compliance.

(I). Adoption of Good Agricultural Practices (GAP)

*All the farmers who are following commercial pineapple cultivation either in owned or leased land should register themselves in their respective Krishi Bhavans so as to form a cluster-having a minimum area of 25 ha. The cluster should adopt the Good Agricultural Practices procedures and standards fixed for GAP certification of pineapple (**Appendix I**) and each farmer should maintain "Farm Dairy" as a document for evaluation, for a minimum period of one year. There should be a lead farmer in each cluster to co-ordinate the group activities*

(II). Scientific use of Plant Protection Chemicals.

Application of Pesticides as per label claims approved by the Registration Committee (CIB&RC) is critical to the health and wellbeing of human beings and Environment. Pesticides are registered for specific usage under terms and conditions approved by the Registration Committee. Therefore, it is the responsibility of all dealers that only registered pesticides are stocked, distributed and sold. The licenced dealers of pesticides shall play a critical role in creating awareness to

farmers in making right choices of pesticides, the dosages, timing and mode of application in accordance with the approved labels and leaflets or recommendation of the Kerala Agricultural University (KAU) and prescription of the Agricultural Officers. The recommendations of plant protection chemicals (insecticides, fungicides, weedicides etc.) given by the Kerala Agricultural University (KAU) should be strictly adopted by the cluster (Appendix II)

(III). Dosage and manner in which the Plant Protection Chemicals have to be procured and used by the farmer.

A peer group will be constituted with leaders of cluster registered in a Krishi Bhavan. This group will take care of the various group activities like training, awareness campaigning and procurement of various inputs including plant protection chemicals with the help of Agricultural Officers. The group shall also conduct visit to individual plots of each cluster in periodical intervals (fortnightly). The peer group shall report in incidence of pest, disease and weed infestation to the concerned Krishi Bhavan. The Agricultural Officer of the concerned Krishi Bhavan will give prescription for the procurement of PP Chemicals as per the recommendation of the Kerala Agricultural University. In order to ensure that the products to be certified are "Safe to eat" the sample of the products should be subjected to pesticide residue analysis at accredited labs.

(IV). Field level Monitoring and GAP Certification.

For the effective implementation of the GAP, there must be a strict supervision and evaluation through field level functionaries.

(a) At Krishi Bhavan level the Agricultural Officer will be the Inspectors, who with the support of Agricultural Assistants will carry out the inspection during the critical growth period of the crop atleast thrice in a cropping period to confirm the requirement of GAP certification by evaluating the Farm Diaries maintained by each farmer. The Agricultural Officer should give cluster wise field inspection report to concerned Block level Assistant Director of Agriculture (ADA).

(b) At Block level the ADA will conduct random field inspection of atleast 25% of the clusters and recommend to the higher authority at the District level to issue 'Safe to Eat Certificate'.

(c) At District level the Principal Agricultural Officer will have the overall control of the programme. The Deputy Director of Agriculture (H) will be the District Nodal Officer. The Assistant Director of Agriculture (Marketing) will assist the Principal Agricultural Officer and the District Nodal Officer in issuing the 'Safe to Eat Certificate' as per the GAP standards.

(V). Penalties to be imposed to farmers/persons who are violating the Guidelines.

The GAP certificate is issued only to those farmers who are following the 11 GAP standards and achieving a minimum of 80% of the total 60 criteria, including the 17 mandatory ones. Those who are violating the guidelines shall be imposed the following penalties.

(a) The penalties prescribed in Section 29 of the Insecticides Act 1968 to be imposed on the persons who contravene any provisions of the Act and *mutatis - mutandis* the indiscriminate use of insecticides, pesticides weedicides etc. in the case of pineapple farming for commercial purposes, subject to the provision of the sub section (2) of section 24 of the Environmental (Protection) Act 1986, the penalties for contravention of the Provisions of the above Act under Section 15 shall also be imposed.

(b) Even though the present issue pertains to farming/ cultivation of pineapple, since the guidelines envisage the issuance of "safe to eat certificate" as per GAP standards, the provisions under the Food Safety and Standards Act 2006 Section 21 of the Act which restricts the presence of pesticide residues of veterinary drugs, antibiotic residues and microbial counts in food which make it unsafe to eat, shall be invoked. Hence the punishment in respect of food under Section 59 of the

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Food Safety and Standards Act, 2006 shall be imposed by invoking the relevant provisions and the implementing authorities under the above Act.

4) Thus the common judgment of the Hon'ble Kerala High Court read as 1st paper above is complied with accordingly.

(By order of the Governor)
DR.RATHAN U KELKAR IAS
SECRETARY

To:

1. The Director of Agriculture, Thiruvananthapuram
2. The Registrar, Kerala Agricultural University, KAU Main Campus, KAU P.O., Vellanikkara, Thrissur Kerala 680656
3. The Administrative Officer, Kerala State Biodiversity Board, Kailasam, T.C.4/1679(1), No.43, Belhaven Gardens, Kowdiar P.O, Thiruvananthapuram - 695003
- 4 All the Principal Agricultural Officers
5. The Advocate General, Ernakulam (with C/L)
6. Sabu John, Chirakkadavil House, Thuruthi P.O, Changanacherry
7. Prema K.B, Kuttiyattil, Mundakkayam East P.O, Kalleppalam, Idukki -686 813
- 8.Ahammed, Melethil House, Chembrassery, Ernadu Taluk, Malappuram
9. Nazar, Ittepadan House, Chembrassery East, Malappuram – 676 521
10. C.K.Anil Kumar, Chencherri House, Vizhikathodu P.O, Koovappally – 686507
- 11.Binoy, Veluparambil House, Erumeli South, Chenappady, Chengankunnu, Erumeli – 686509
12. Jibi Joseph, Edayattel House, Kalloorkadu, Muvattupuzha – 686510
13. Satheeshkumar Sabu, Sreebhavan, Thelliyoar, Pathanamthitta – 689 544
- 14.Kuriakose T.V, Tharamuttam House, Avoli Post, Vazhakkulam – 686670

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15. Azeez Rawther, Valiyavila Bushara Manzil, Thalachira Post - 691538
16. Aleyas C.E. Chamakkattu House, Oonjappara Kara, Keerampara, Kothamangalam - 686691
17. Jomon, Puliveliputhenveetil House, Thelliyoar P.O, Pathanamthitta - 689544
18. Office Copy

Forwarded / By order

Signature valid

Digitally signed by SREELATHA S
Date: 2020.08.18 11:23:11 IST
Reason: Approved

Section Officer

Copy to:

- (1) The PS to Agriculture Minister
- (2) The PA to APC
- (3) The PA to Agriculture Secretary
- (4) The Agriculture (PU) Department

GOOD AGRICULTURAL PRACTICES (GAP) FOR PINEAPPLE CULTIVATORS IN KERALA

In order to regulate the uncontrolled and unscientific use of Plant Protection Chemicals (PPC) including Plant Growth Regulators in Pineapple cultivation, the following guidelines for adoption of scientific package of practices in pineapple cultivation are issued for strict compliance.

1. Farmer Registration and Cluster Formation

All the farmers who are cultivating pineapple commercially having a minimum area of 25 cents of owned / leased land should register themselves in their respective Krishi Bhavans so that a registry of pineapple farmers can be generated. The farmers thus registered should form a cluster having an area of 25 ha. There should be a lead farmer in each cluster to co-ordinate the group activities.

2. Adoption of Good Agricultural Practices(GAP)

Implementation of Good Agricultural Practices is voluntary and non-discriminatory to all the farmers in a cluster. Assistance from the State Schemes (Organic farming & GAP), SHM and LSGD can be availed for adopting GAP. All the pineapple farmers should be provided with a Farm Diary in Malayalam containing all the package of practices recommendations to be followed starting from planting to harvesting. Each farmer should record all the activities as specified in the Farm diary provided and the Agricultural Assistants of the Krishi Bhavans should ensure that same are maintained up to date.

3. Monitoring and GAP Certification

The farmers registered in each cluster should maintain the Farm Diary up to date as a documentary evidence to prove that internal self-assessment is carried out as per requirements during the course of cultivation. The Farm Diary should be kept for a minimum period of one year and should be made available to field level functionaries and certification officials as and when needed. Based on this a four tier system of monitoring should be implemented as detailed below.

- a. **Internal appraisal by Peer Groups:-** A peer group will be constituted comprising of leaders of all the farmer groups (clusters) registered in a Krishi Bhavan. The Group will take care of the various group activities like procurement of inputs, training, auditing of activities undertaken by individual farmers and also assist them to get technical support of Krishi Bhavan. The peer group will conduct visits to individual plots once in a fortnight and verify the compliance of various requirements and help the farmers to keep necessary records.

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b. **Supervision and Reporting by the field level Functionaries:-**

The field level functionaries like Agricultural Assistants, Field Assistants and Pest Scouts will inspect the plots at least once in a week during the entire crop period and verify the connected documents and records.

c. **Evaluation, Correction and Certification by the Agricultural Officer:-** The Agricultural Officers in the Krishi Bhavans will be the Inspectors who with the support of Agricultural Assistants will carry out inspections of the crop management activities undertaken by the farmers through field diaries maintained by the farmers. As competent authority for certification of 'safe to eat', the Agricultural Officer will have all the freedom for inspection of plots, evaluation, suggesting corrections in case of non-conformities. He will inspect the plot during the critical growth period of the Crop at least thrice during the crop period. He will appraise the reports generated by the field level functionaries and suggest suitable remedial measures to solve the problems. The Agricultural Officers will organise training programmes as and when needed or demanded. He is entitled to suggest suitable control measures and will see that the chemicals are applied as directed and waiting periods are observed before harvesting. He will draw random samples for test on pesticide residues. Based on the field and lab reports, conformity of requirements of standards and records maintained he will certify the farm for the adoption of '**Good Agricultural Practices (GAP)**' and it will be valid for one year. Then the Agricultural Officer will recommend to the Block level Assistant Director of Agriculture, who in turn will conduct random field level inspection of at least 20% of the total clusters of the respective block and recommend to the District level authorities to issue the '**Safe to Eat Certificate**'. Certified products will be provided a separate logo and brand name.

d. **Monitoring and Certification at District level:-** The Principal Agricultural Officers at District level will have the overall control of the programme. Deputy Director of Agriculture (H) will be the District Nodal Officer. The Assistant Director of Agriculture (Marketing) will assist the Principal Agricultural Officer and the District Nodal Officer in issuing the '**Safe to Eat Certificate**' as per the **GAP standards fixed**.

1. **Enforcement of Quality Control of Agri. Inputs:-** Quality control of major Agri. Inputs such as Seed/Planting materials, Fertilizers and Plant Protection Chemicals (PPC) should be enforced strictly as per the Seed Act 1966, Fertilizer Control Order 1985 and Insecticide Act 1968 respectively. The notified Seed Inspector, Fertilizer Inspectors and Insecticide Inspectors should visit the licenced depots of seed, fertilizer

and PPC at least once in three months and verify whether the dealers comply with the terms and conditions stipulated in the licences. Stringent action should be taken against those who violate the provisions in the respective Acts/Orders. The licence of retail PPC dealers should be cancelled if restricted pesticides are sold without the prescription of the Agricultural Officers. In the District should be verified by the Deputy Director of Agriculture (H) once in three months

2. Principal Agricultural Officer of the District should verify at least 1% of the plots once in a cropping season.
3. Awareness campaign should be conducted among the pineapple cultivators regarding the usage of fertilizers and plant protection chemicals such as weedicide, insecticide, fungicide and growth regulators at various growth stage of the crop.

Good Agricultural Standards for Pineapple cultivation

1. Seeds / Planting Material

The seeds/ planting material selected for planting must be most suited for the local production situation and conditions. The certified farm must keep the records of purchase of seeds and planting materials.

- 1.1 The Producer should choose the variety of crop that is most suited for the geographical location and climate.
- 1.2 The Producer should choose the variety of crop that is pest and disease resistant.
- 1.3 **The use of genetically engineered seeds, pollen, transgene plants or plant material should be avoided.**
- 1.4 The Producer should maintain records (bills/ vouchers) of the seeds/ planting materials purchased.

2. Product Traceability

The certified farm must develop a clear and visually identifiable system for avoiding the mixing of certified products with non-certified products in its facilities, including harvesting, post-harvest handling, processing and packaging of products, as well as transportation. The certified farm must have documented records to prove the traceability.

- 2.1 **Records of volume of certified products harvested should be available and regularly maintained**

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2.2 The Producer must follow a clear and visually identifiable label while transportation.

2.3 The Producer must have records of product flow including the balance stock of each certified Product

3. Soil Management

Adoption of Good Agricultural Practices maintains or improves the soil. Soil is fundamental to agriculture and a well- managed soil improves productivity of crop.

3.1 The producer must use techniques to prevent soil erosion. In the case of new plantings, re-plantings vetiver grass or other suitable plant species should be planted around the erosion prone areas.

3.2 The producer must use techniques to maintain and improve soil structure and fertility.

3.3 In sloppy areas planting on contour lines should be followed. Wherever possible contour bunds must be constructed for soil and water conservation.

4. Fertilizers

Appropriate choice and use of fertilizers as recommended by Research Institutions, Agricultural University or Department of Agriculture will help in maintaining the soil fertility and in getting optimum productivity.

4.1 The Fertilizer application should be made on the basis of nutrient availability of the soil (Preferably based on soil analysis)

4.2 Fertilizers should be selected and used as per the Package of Practices (POP) recommendation of Kerala Agricultural University and recommendations of other research institutions.

4.3 Records should be maintained for the purchase of fertilizers, its storage and application.

4.4 The fertilizers must be stored safely in premises which are dry, well ventilated and do not have access to children or unintended people.

4.5 The Producer must take appropriate measures to prevent residues on the leaves after spraying liquid fertilizers (for leaves used as edible part)

4.6 The details of application of organic and inorganic soil and foliar fertilizers (including fertigation) are to be recorded (except for mulch and farm made compost), which include:

- date of application
- product brand name, type of fertilizer and chemical composition (name and concentration of plant nutrients)
- quantity or volume per hectare, plot or field

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- field identification (name, number or code, location)
 - method of application and equipment used

5. Crop Protection Products (CPP)

- 5.1 Integrated pest and weed management programme may be adopted, which promotes the use of physical, biological, mechanical and cultural control methods, and the least possible use of agrochemicals.**
- 5.2 CPPs should be selected and used as per the recommendation of Agricultural University, Research Institutes, Department of Agriculture etc.**
- 5.3 Documented records for the use of CPPs should be maintained with the following details:**
- preharvest interval
 - date of application
 - product brand name, type of agrochemical and composition (name and concentration of active ingredients)
 - quantity or volume per hectare, plot or field
 - field identification (name, number or code, location)
 - method of application and equipment used
- 5.4 The CPPs, which are banned by the Central and State Government should be avoided.**
- 5.5 The waiting period prescribed for the CPPs should be strictly followed by the farm.**
- 5.6 The CPPs should not be used near to water bodies, water sources and areas having human movement. Producer may maintain buffer zones to prevent the chance of contamination by drift.**
- 5.7 The areas demarcated for mixing of CPPs should be away from any natural water bodies and drinking water sources.**
- 5.8 Adequate visual warning signs must be used to inform people on re-entry time.**
- 5.9 The CPPs must be stored safely and correctly in premises which are dry, well ventilated and do not have access to children or unintended people.**
- 5.10 Storage areas should display information on hazardous chemicals in a way which is easily understandable to the workers (in a language they can understand or in pictorial formats), including information regarding their classification, the hazards they present and the safety precautions to be observed.**

- 5.11 CPPs containers could be re-used only for the same chemical product if labelled for reuse and it will never be used to store water, food or feed.
- 5.12 The certified unit must have an adequate plan for safe disposal of the CPP empty containers.
- 5.13 Emergency facilities must be available in the vicinity of CPP storage to deal with spillage of CPP
- 5.14 Obsolete plant protection products should be securely maintained and disposed off in a safe manner
- 5.15. Material safety data sheet (MSDS) must be available with farmer to deal with accidental poisoning

6. Water Management

Ensure that farming activities must be organized in such a way that natural water bodies and drinking water supplies are not polluted

- 6.1 The best possible irrigation method that minimizes the wastage of water must be used.
- 6.2 Avoid Sewage water for irrigation.
- 6.3 Rainwater harvesting or infiltration may be practiced, for example from roofs or retention ponds built in runoff areas away from streams.

7: Packing, Labelling and Transport

The certified units must follow good manufacturing and hygienic practices throughout the process. Clear separation followed during packing, labelling and transport to avoid any contamination/comingling. The packing materials used must be clean and should not be stored along with CPP, fertilisers, fuel etc.

- 7.1 Good Hygienic practices should be ensured while packing and labelling.
- 7.2 **Product integrity should be maintained during packing and transportation of certified products.**
- 7.3 **Certified product should be separated from non-certified products during transport with clear labelling.**
- 7.4 Cleaning agents, lubricants, fuel, CPP and fertilizers should not be stored along with the packing materials, finished products etc. to prevent chemical contamination of produce.
- 7.5 Transport vehicles should be maintained clean to avoid contamination.
- 7.6 Rejected produce and waste material in the packing environment should be disposed in designated areas.
- 7.7 Packing materials should be clean and stored in clean and hygienic conditions

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8. Waste and Pollution Management

- Certified facility should be established for recycling and/or safe and responsible disposal of waste from crop production for effective waste management to minimise environmental pollution.*

8.1 The farm must implement an integrated waste management program for the wastes it generates.

8.2 The farm must appropriately use the crop residues and biodegradable wastes from farm for the production of manure or compost or use as mulch.

8.3 The use of open waste dumps and open-air burning of waste is prohibited.

8.4 The waste deposal areas on the farm must be managed to reduce the risks of environmental contamination and damage to human health.

8.5 Plastic items, PVC and other toxic items should never be burnt in the farm

8.6 The farm must be clean and free of non-biodegradable waste products in order to maintain a positive image of the farm.

9. Training

Training programmes must be designed and implemented for the farmers and workers on various aspects of the standard. All the training programmes must be documented and records must be available for verification.

9.1 Training must be provided to farmers on GAP standards

9.2 Farmers and workers must be trained on safe use of crop protection products and other agro chemicals.

9.3 Farmers and workers must be trained on use of Personal Protective Equipment while applying the crop protection products.

9.4 Training must be provided to farmers and workers on safe & appropriate application of Fertilizers and CPPs.

9.5 Farmers and workers should be trained on appropriate on-farm processing and handling activities.

9.6 Farmers and workers should be trained on farm management activities including maintaining proper buffer zone, water management, waste management etc.

9.7 Records of training must be maintained for verification

10. Ecosystem Conservation

Certified farms should protect the natural ecosystems and biodiversity. It should conduct activities to restore degraded ecosystems. The farm should promote ecological restoration of areas that are not used for agricultural production on the farm. There should not be destruction of endangered plant/animal species.

10.1 The farming activity should not cause any type of contamination or pollution to the environment.

10.2 No solid waste/ waste water must be discharged in to the farm

11. Health and Safety

Health and safety measures should be ensured in the work place. This helps to prevent adverse effects on health caused by the working conditions and reduce the risk of accidents in the workplace.

11.1 All workers and farmer himself who apply, handle, transport or come into contact with agrochemicals must be trained by a properly qualified trainer,

11.2 The unit shall provide free access to clean and safe drinking water for all workers.

11.3 The production unit should be equipped with First Aid boxes and safety measures.

11.4 Farmers/workers who handle hazardous crop protection products should wear suitable protective clothing and periodical medical checkup shall be ensured.

Number of Mandatory Criteria = 17

Number of Other Criteria = 43

Total Criteria = 60

Eligibility for GAP certification: Pineapple Farms must comply with 100% mandatory criteria (indicated in bold letters) and should get minimum 80% overall score for certifying the farm as per Good Agricultural Practice Standards (Kerala GAP). The farm which complies with all criteria, is marked as YES (compliance) and which do not comply the criteria, is marked as NO (non-compliance).

Calculation of the final score after the audit:

Number of criteria Complied x 100

Number of criteria applicable to the farm

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Appendix II

List of agrochemicals recommended

Agrochemical	Dose	Remarks
a) Herbicides		
Diuron	3 Kg in 600 liters of water per hectare	for weed management in the variety 'Kew'
	1 Kg in 600 liters of water per hectare	for weed management in the variety 'Mauritius'
Bromacil	2.5Kg in 600 liters of water per hectare	for weed management in the variety 'Kew'
b) Fungicides		
Bordeaux mixture	1.00%	for management of root rot/heart rot/fruit rot diseases
Mancozeb	2 g/L	for management of leaf spot diseases
c) Insecticides		
Quinalphos	0.05%	for management of mealy bugs and scale insects
Chlorpyrifos	0.05%	for management of mealy bugs and scale insects
Dimethoate	0.05%	for management of mealy bugs and scale insects
d) Hormone		
Ethephone	25 ppm in solution containing 2% urea and .04% calcium carbonate	For induction of uniform flowering

Directorate of Agriculture,
Vikas Bhavan,
Thiruvananthapuram.

Endorsement No: TD(R)33230/2019 Dated: 24/8/2020

Copy of the GO is endorsed to below officers for information and necessary action.

To All principal Agrl. Officers, SHM,
KAL, Bio-Diversity board,
and
TQ Section, Organic farming Cell.

FOR DIRECTOR OF AGRAL

RAJESWARI. S.
PLANT PROTECTION
AGRICULTURE DEVELOPMENT
& FARMERS WELFARE
VIKAS BHAVAN, TV.