
CB.1 Traceability

➤ **Feasibility of traceability -**

product traceable back to and trackable from the registered farm

➤ **Farm location**

Survey No./part-survey No., Village, Tehsil District, State where the farm is located along with total area under cultivation and specify the area under INDGAP certification.

➤ **Identification of farm infrastructure**

Are fields/plots and structures identified on the field map?

CB.2 PROPAGATION MATERIAL

Quality and Health

➤ **Seed quality**

Is there a document that guarantees seed quality

➤ **Quality of propagation material**

Is purchased propagation material free of visible signs of pest and disease?

➤ **Documentation of propagation material**

➤ **Quality system in in-house**

➤ **Recommendation of SAU / NRC/other govt. approved organizations**

Are improved varieties of seeds recommended by the SAU/NRC/other govt. approved organizations used? If hybrid seeds are used the brand name.

CB.2 PROPAGATION MATERIAL cont....

➤ **Recommendation of GEAC**

If GM crops are used, the GEAC number, permitting its usage

➤ **Pest / disease resistance**

Do the seeds have any special quality with reference to resistance to pests/diseases, quality of the produce, germination percentage, expiry date, physical or any other characteristics?

➤ **Treatment of seeds**

Are the seeds treated with approved fungicides / pesticides and, if so, are these differentiated by colour to avoid accidental use in feed or food?

➤ **Certification of planting material**

Do the seedlings, saplings, graft and buddings, cuttings have been procured from a certified source

➤ **Grower awareness of scion variety**

Is the grower aware of the scion variety used and its source & qualities?



CB.2 PROPAGATION MATERIAL cont....

➤ **Grower awareness of clones**

Is grower aware of the clones or hybrid combinations from which the scion material and its merits, if any?

➤ **Quality of rootstock**

rootstock used for propagation, appropriate for the situation

➤ **Propagation of rootstock**

Is the rootstock material sexually or vegetatively propagated?

➤ **Use of recommended technology**

Has the recommended technology both in primary and secondary nursery,

➤ **Crop protection measures**

Are the preventive measures against pests and diseases taken?

Are crop protection treatments applied recorded?

CB.2 PROPAGATION MATERIAL cont....

Pest and Disease Resistance

➤ **Varietal selection**

Does the producer consider pest and disease resistance/tolerance characteristics during variety selection?

Chemical Treatments and Dressings

➤ **Rootstock treatment records**

Is the use of seed/annual rootstocks treatments recorded?

➤ **Record of plant protection products**

Sowing/Planting

➤ **Record of sowing / planting methods**

Does the producer keep records on sowing/planting methods, seed/planting rate, sowing/planting date?

CB.2 PROPAGATION MATERIAL cont....

Genetically Modified Organisms (N/A if no Genetically Modified

➤ **Legal compliance of GMOs**

Does the planting of or trials with GMO's comply with all applicable legislation in the country of production?

➤ **Documentation of GMOs**

Is there documentation available when the producer is growing genetically modified organisms?

➤ **Communication of GMOs**

Did the producer inform their direct clients of the GMO status of the product?

➤ **Handling plan for GMOs**

Is there a plan for handling GM material (crops and trials) setting out strategies to minimize contamination risks, such as accidental mixing of adjacent non-GM crops and maintaining product integrity?

➤ **Segregation of GMO crops**

Are GMO crops stored separately from other crops to avoid adventitious mixing?



CB.3 SITE HISTORY AND SITE MANAGEMENT

Rotations

➤ Crop rotation

Is there, where feasible, crop rotation for annual crops?

CB.4 SOIL MANAGEMENT

Soil Mapping

➤ **CB.4.1.1 - Mapping of soil**

Have soil maps been prepared for the farm?

➤ **Soil health**

Is soil health based on chemical composition suited for crops?

Cultivation

➤ **CB.4.2.1 - Soil maintenance**

Have techniques been used that improve or maintain soil structure, and to avoid soil compaction? Is it according to norms set out by the NRC/SAU or as per the standard practices?

Soil Erosion

➤ **CB.4.3.1 - Field cultivation**

Are field cultivation techniques used to reduce the possibility of soil erosion?



PLANT NUTRITION MANAGEMENT / FERTILIZER USE

CB.5.1 Nutrient Requirement

➤ **Proper application of plant nutrients**

Is the application of all plant nutrition products timed to maximize the efficacy and/or uptake by target crops?

CB.5.2 Advice on Quantity and Type of Fertilizer/Nutrients

➤ **Recommendations on use of fertilizers/ nutrients - Major**

Are recommendations for application of fertilizers/ nutrients (organic or inorganic) given by competent, qualified advisers holding a recognized national certificate or similar? Do producers who use outside professional help (advisers and consultants) regarding the use of fertilizers/ nutrients satisfy themselves that the people on whom they rely are competent to provide that advice?

➤ **Competence of advice**

Are producers able to demonstrate their competence and knowledge, where such advisers are not used?



CB.5 PLANT NUTRITION MANAGEMENT / FERTILIZER USE cont.....

Records of Application

- **Dates of nutrient application**
- **Record of applied nutrient types**
- **Record of applied quantities Record of method of application**
- **Record of operator details -**

Have all applications of soil and foliar fertilizers, both organic and inorganic, been recorded including the operator details?

CB.5 PLANT NUTRITION MANAGEMENT / FERTILIZER USE cont.....

Application Machinery

➤ Condition of application machinery

Is fertilizer application machinery kept in good condition and verified annually to ensure accurate fertilizer application?

CB.5.5 Storage of Fertilizers / Nutrients

➤ Inventory of fertilizers Segregation of fertilizers from plant protection products -

Are inorganic fertilizers stored separately from plant protection products?

➤ Protection of storage area Hygiene of storage area

Are inorganic fertilizers stored in a clean area?



CB.5 PLANT NUTRITION MANAGEMENT / FERTILIZER USE cont.....

- **CB.5.5.5 - Humidity in storage area - Major**
Are inorganic fertilizers stored in a dry area?

- **CB.5.5.6 - Reduction in risk of contamination of water -Major**
Are inorganic fertilizers stored in an appropriate manner, which reduces the risk of contamination of water courses?

- **CB.5.5.7 - Reduction in risk of contamination of environment - Major**
Are organic fertilizers stored in an appropriate manner, which reduces the risk of contamination of the environment?

- **CB.5.5.8 - Segregation from produce - Critical**
 - Are inorganic and organic fertilizers stored separate from farm produce harvested - fresh or dry, as applicable?

CB.5 PLANT NUTRITION MANAGEMENT / FERTILIZER USE cont.....

Organic Fertilizer

- **Ban on human sewage sludge**
- **Risk assessment of organic fertilizer Nutrient in organic fertilizer**
- **Method of organic manure preparation**
- **Soil enrichment**
- **Use of green manure - Minor**

Are the green manures incorporated into the soil to improve soil health?

CB.5 PLANT NUTRITION MANAGEMENT / FERTILIZER USE cont.....

- **Use of bio-fertilizers**
- **Use of sheep/ poultry manure**
- **Use of municipal /industrial sludge**
- **Use of other organic manure**

Inorganic Fertilizer

- **Composition of inorganic fertilizer**
- **Documentary evidence of chemical content**
- **Dosage recommendations by SAU/NRC /other approved organizations**
- **Micro nutrient content**



CB.5 PLANT NUTRITION MANAGEMENT / FERTILIZER USE cont.....

➤ **Stages of nutrient applications - Major**

Are the Critical/Major nutrients applied through recommended application practices at appropriate stages of crop growth?

Grower competence on applications

Does the grower demonstrate her/his competence to determine the type and quantity of fertilizers/nutrients being used and its application?

➤ **Record of applications**

Have all applications of soil & foliar fertilizers, both inorganic, organic & bio-fertilizers been recorded?

CB.6 IRRIGATION / FERTIGATION

Predicting Irrigation Requirements

➤ **Methods of calculation**

How calculated the water requirement of the crop?

Irrigation / Fertigation Method

➤ **Method of irrigation / fertigation**

Can the producer justify the method of irrigation/ fertigation used in light of water conservation?

➤ **Water optimization**

Is there a water management plan to optimize water usage and reduce waste?

➤ **Record of irrigation/ fertigation**

Are records of irrigation/fertigation water usage maintained?

CB.6 IRRIGATION / FERTIGATION

Quality of Irrigation Water

➤ **Ban on untreated sewage water**

untreated sewage water for irrigation/fertigation is banned?

➤ **Annual risk assessment**

Has an annual risk assessment for irrigation/fertigation water pollution been completed?

➤ **Frequency of analysis**

Is irrigation water analyzed at a frequency in line with the risk assessment (CB.6.3.2)?

➤ **Suitability of laboratory**

Is the analysis carried out by a suitable laboratory?

➤ **Action on adverse results**

Have any adverse results been acted upon?

CB.6 IRRIGATION / FERTIGATION

Supply of irrigation/fertigation water

➤ **Sustainability of water source**

To protect the environment, is water abstracted from a sustainable source?

Advice on abstraction

Has advice on abstraction been sought from water authorities, where required by law?

➤ **Water quality**

Is the water potable or free from harmful contaminants?

Dependability of water source

Is the source dependable under normal conditions during rain free period? Is the source an approved one?

CB.6 IRRIGATION / FERTIGATION

➤ **Water harvesting - Minor**

Is water harvesting being practiced by the farmer?

➤ **Water conservation - Minor**

Is water conservation being practiced by the farmer?

➤ **Irrigation equipment**

Is the farmer maintaining irrigation equipment as per guidelines provided by the manufacturer?

➤ **Prevention of undesirable water**

Has adequate measures taken to prevent flow of water into the fields from undesirable sources like municipal landfill areas, hospital & industry waste dump areas, etc?



CB.7 INTEGRATED PEST MANAGEMENT

- **Assistance for IPM** been obtained through training or advice?
- **Evidence for prevention , Evidence for monitoring Evidence for intervention**
Can the producer show evidence of implementation of at least one activity that falls in the category of Prevention“, "Intervention"?
- **Minimum input use**
Where plant protection products have been used, has protection been achieved with the appropriate minimum input?
- **Anti resistance label recommendation**
Have anti-resistance label recommendations been followed to maintain the effectiveness of available plant protection products?
- **IPM for endemic pests /diseases**
Are the IPM practices suggested for endemic pests and diseases are followed?



CB.7 INTEGRATED PEST MANAGEMENT

Soil Treatment

➤ **Soil treatment recommendations**

Is soil treatment, suggested by Competent consultant, SAU/NRC, SMS, KVK

Seed Treatment

➤ **Methods of sowing**

Are seeds treated using approved methods before sowing?

Cultural Methods

➤ **Use of cultural practices**

cultural practices followed to preventing the build up of pests and diseases followed?

➤ **Total use of recommendations**

Are the recommended IPM practices completely followed?

➤ **Use of mechanical methods**

Are recommended mechanical methods for control of pests and diseases followed?

➤ **Use of biological methods**

Are biological methods and bio control measures followed as recommended by the SAU/NRC or any other govt. agency?

CB.7 INTEGRATED PEST MANAGEMENT

CB.7.8 Soil Treatment

➤ **CB.7.8.1 - Soil treatment recommendations – Major**

Is soil treatment, suggested by SAU/NRC or approved by any other govt. agency for endemic pests and diseases followed?

CB.7.9 Seed Treatment

➤ **CB.7.9.1 - Methods of sowing – Minor**

Are seeds treated using approved methods before sowing?

CB.7.10 Cultural Methods

➤ **CB.7.10.1 - Use of cultural practices - Major**

Are appropriate cultural practices followed for preventing the build up of pests and diseases followed?

➤ **CB.7.10.2 - Total use of recommendations - Critical**

Are the recommended IPM practices completely followed?

➤ **CB.7.10.3 - Use of mechanical methods - Major**

Are recommended mechanical methods for control of pests and diseases followed?

➤ **CB.7.10.4 - Use of biological methods - Major**

Are biological methods and bio control measures followed as recommended by the SAU/NRC or any other govt. agency?

CB.8 PLANT PROTECTION PRODUCTS

Choice of Plant Protection Products (PPP)

➤ **Use of label recommendations**

Is the plant protection product applied appropriate for the target as recommended on the product label?

➤ **Use of registered plant protection products**

Do producers only use plant protection products that are registered in the country of use for the target crop where such official registration scheme exists?

➤ **Purchase record**

Are invoices of registered plant protection products kept?

➤ **List of plant protection products**

Is a current list kept of plant protection products that are used and approved for use on crops being grown?

➤ **Awareness of banned chemicals**

Is the farmer aware of the banned chemicals and is there a process that prevents chemicals that are banned in the target country from being used on crops destined for sale in that country?

CB.8 PLANT PROTECTION PRODUCTS

➤ **Competence of advisors**

can they demonstrate competence?

➤ **Competence of producer**

If the choice of plant protection products is made by the producer, can competence and knowledge be demonstrated?

➤ **List of pest / diseases in the area**

List out the common pests and diseases of the area and those that occurred on the crop during the past three crop seasons.

➤ **Appropriateness of chemical**

Is the crop protection chemical applied, appropriate for the target pest/disease?

➤ **Banned chemicals - Critical**

Are chemicals banned in India or importing countries used for crops destined for internal use or for exports?

CB.8 PLANT PROTECTION PRODUCTS

Records of Application

- Record of applications
- Record of application location
- Record of application dates
- Record of chemical trade names
- Identification of operator



CB.8 PLANT PROTECTION PRODUCTS

- **Record of justification of application**
- **Record of technical authorization**
- **Record of quantity of application**
- **Record of application machinery**
- **Record of pre harvest interval**

Have all the plant protection product applications been recorded including the pre-harvest interval?



CB.8 PLANT PROTECTION PRODUCTS

Pre-Harvest Interval (Not Applicable for Flower and Ornaments)

- **Observation of pre harvest intervals**

Application Equipment

- **Condition of application machinery & calibration**
- **Producer's participation in calibration of equipment**
- **Label instructions - Major**

When mixing plant protection products, are the correct handling and filling procedures followed as stated on the label?



CB.8 PLANT PROTECTION PRODUCTS

Disposal of Surplus Application Mix

➤ **Disposal method - Major**

Is surplus application mix or tank washings disposed of according to national or local law, where it exists, or in its absence according to points CB.8.5.2 and CB.8.5.3, either of which in this case must be complied with in order to comply with this Major must?

➤ **Record of surplus application mix**

Is surplus application mix or tank washings applied over an untreated part of the crop, as long as the recommended dose is not exceeded and records kept?

➤ **Record of surplus application mix in fallow land**

Are surplus application mixes or tank washings applied onto designated fallow land, where legally allowed, and records kept?

CB.8 PLANT PROTECTION PRODUCTS

CB.8.6 Plant Protection Product Residue Analysis (N/A for Flower and Ornamental production)

➤ **Sampling procedure - Major**

Are the correct sampling procedures followed?

➤ **Record of residue testing**

➤ **Knowledge of MRL of target**

➤ **Action taken to comply with MRL**

➤ **Action on non compliances**

➤ **Accreditation of laboratory**

Is the laboratory used for residue testing accredited by a competent national authority to ISO 17025 or equivalent standard?

CB.8 PLANT PROTECTION PRODUCTS

Plant Protection Product Storage

- Compliance with local Storage conditions
Safe and sound?
- Security at location
Are plant protection products stored in a location that is secure?
- Temperature conditions
- Fire protection
- Ventilation
- Light arrangement
- Segregation from other materials
- Condition of shelves
- Prevention of spillage



CB.8 PLANT PROTECTION PRODUCTS contd..

- Measuring equipment
- Facilities to prevent
- Worker restriction
- Inventory records
- Packaging
- Segregation for crop rotation plant protection products
- Positioning in

CB.8 PLANT PROTECTION PRODUCTS

CB.8.8 Plant Protection Product Handling

- **CB.8.8.1 - Health check of workers**
 - annual health checks? Or risk based
- Procedures for re-entry of persons
- Monitoring of re-entry times
- Accident procedures
- Prevention accidental

CB.8.9 Empty Plant Protection Product Containers

- Reuse of containers
- Disposal of containers
- Environmental
- Official disposal system

CB.8 PLANT PROTECTION PRODUCTS

➤ **Cleaning of empty containers**

Are empty containers rinsed either via the use of an integrated pressure rinsing device on the application equipment, or at least three times with water?

➤ **Rinsing**

Is the rinsate from empty containers returned to the application equipment tank?

➤ **Storage of empty containers**

Are empty containers kept secure until disposal is possible?

➤ **Compliance with local regulations**

Are all local regulations regarding disposal or destruction of containers observed?

CB.8.10 Obsolete plant protection products

➤ **Disposal of obsolete chemicals**

Are obsolete plant protection products securely maintained and identified and disposed of by authorized or approved channels?



Thank You

Dr. Hari Prakash

Quality Council of India

National Accreditation Board for Certification Bodies

2nd Floor, Institution of Engineers Building,

2, Bahadur Shah Zafar Marg, New Delhi – 110002, INDIA

Tel : +91-11-23379321/9260/0567/8057

Fax: +91-11-23379621

Email : qci03@qcin.org Website : www.qcin.org