



CO-OPERATIVE REPUBLIC OF GUYANA
MINISTRY OF AGRICULTURE



NATIONAL AGRICULTURAL RESEARCH AND EXTENSION
INSTITUTE

NATIONAL PLANT PROTECTION ORGANIZATION

FARM, NURSERY, SHADE HOUSE CERTIFICATION MANUAL

National Plant Protection Organization
Mon Repos, East Coast Demerara.

2021

FARM CERTIFICATION

What is farm certification?

Farm certification is the process involving detailed inspection and auditing of farms for the purpose of validating their suitability for a particular object. Certification for example, may be for the purpose of seed production, organic crop production or for the provision of produce for the export market. The procedure described below, focuses on certification for the export market.

Discovery of the pink hibiscus mealybug or pink mealy bug (PMB), *Maconellicoccus hirsutus*, a pest of Asian origin, in Guyana in 1997, resulted in some of the country's trading partners prohibiting the importation of fresh agricultural produce from Guyana. Those countries considered that trading with Guyana was high risk and could lead to the introduction of the mealybug into their countries. The onus was therefore with Guyana to convince her trading partners that its exports of fresh agricultural produce would not increase the risk of the PMB entering their countries.

It became necessary firstly to establish the distribution of the pest and subsequently demonstrate that there were large geographic regions within the country that were free of the pest.

The process of farm certification.

The process of certifying farms must follow a number of predetermined criteria. These will relate first to the presence or absence of a specific pest species. The next phase of the process will take account of the other pests of economic importance and their management. Particular attention must be paid to the kind of pesticides used.

- The first step in the process is to establish “**Pest Free Areas**” ; these are “ areas in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained. In the case of PMB, an area designated as pest free means that it is free of the mealybug. It further means that all farms within this area have the potential to become “certified farms”, and as such can supply produce for export.

- In the event that the pest has spread extensively in the country, then the concept of “**Pest Free Place of Production**” will apply. Such places may be situated in an area where the pest is present, but are isolated by what may be described as buffer zones.

Farms in a district, village or region, which is infested with the particular pest, may therefore be certified provided that they are separated from the nearest infestation by a predetermined distance. The distance will be determined by the biology of the specific pest, focusing essentially on the following:

- its means of dispersal
- Availability of host plants
- Its rate of reproduction, and
- Its survival potential

2.0 Methodology for farm certification

All farms within “**Pest Free Areas**” may be considered for certification since they are located in geographic areas that are known to be free of a particular quarantine pest. Their ultimate certification, for whatever purpose, will be based on the presence of other pests, their level of severity, effect on the commodity and pesticide(s) use in controlling them.

The farm certification process takes account of the farming system, crop types being cultivated and pest complex and their management. A statement must be made regarding the strengths and weaknesses of the crop production effort.

The presence of proper drainage and irrigation systems may be regarded as a strength, while poor field sanitation can be viewed as a weakness.

The following data will be gathered during a farm certification exercise:

- a) Status regarding pest of quarantine importance.

A statement must be made regarding any pests of quarantine importance of any crop being cultivated on a farm. The statement must read as follows, “**farm is a pest free zone**” or “**Farm in pest free place of production**”.

b) The following details will then be taken

1. Farm/ Farmer's name
 2. Farmer's home address
 3. Location of farm
 4. Area under cultivation (this may be documented as number of "roots" [plants], number of beds {it is important to get the size of a bed}, or number of acres / hectares.
 5. Farming system (pure stand, mixed cultivation or intercropping). Give some indication of the area under cultivation of each crop; e.g. if it is a mixed cultivation, say what are the crops planted and area under each crop.
 6. Agronomic practices; this will include the following: variety planted, planting distance/ plant density, plant nutrition (fertilizer use- type and timing of application.
 7. Pest management. This will take account of the pest complex of each crop (placing the pest in major and minor/ occasional categories) , and the method of management.
- Every pest species affecting a crop and the severity of the infestation must be documented, e.g.:

Thrips	<i>Thrips palmi</i>	major pest; causes sever damage
Army worm	<i>Spodoptera frugiperda</i>	occasional pest; minimal damage
 - Effect(s) of pest on the commodity
 - Special attention must be paid to type of pesticides use (some importing countries state specific chemicals that are banned for use on commodities being destined for their markets).
 - Data must be collected on the strategy that is applied to manage every pest species. Where chemical control is used, the pesticide(s) and dosage use, and frequency of use of each pesticide must be noted. There must also be a statement on the efficacy of the treatment, viz, whether or not the treatment worked.

Farms using monocrotophos should not be certified.

The certification of farms within “**Pest Free Places of Production**” must be approached with more caution than those in “**Pest Free Zones**” since in the former case the particular pest of quarantine importance is in areas surrounding the farm. The same details listed above will be gathered in this process.

Conditions under Which an Automatic “Unsatisfactory” Will be assessed

- An immediate food safety risk is present when produce is grown, processed, packed or held under conditions that promote or cause the produce to become contaminated.
- The presence or evidence of rodents, an excessive amount of insects or other pests in the produce during packing, processing or storage.
- Observation of employee practices (Personal or hygienic) that jeopardize or may jeopardize the safety of the produce.

Thus the grading scheme will follow:

Excellent	5
Good	4
Satisfactory	3
Poor	2
Very poor	1
Not Implemented	0

NB: *If parameter score falls between 0-3; that parameter will be highlighted and recommendations for improvement will be given.*

INSERT CHECKLIST

Inspector’s Signature
Inspector’s Name

Owner’s Signature
Owner’s Name

Less Justified “N/A” _____

Total achievable points =
Passing Percentage: 75% (N.P.P.O Standards)

Point achieved =
Total percentage scored: