



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF AGRICULTURE  
**FERTILIZER AND PESTICIDE AUTHORITY**  
FPA Building, BAI Compound, Visayas Avenue, Diliman, Quezon City  
Tel.Nos.: 922-33-71 • 927-36-47 • 922-33-62 • 928-25-36 • 920-00-68 • 920-81-73  
Telefax: 922-33-55 • 920-82-38  
e-mail address: fpa\_77@yahoo.com website address: <http://fpa.da.gov.ph>  
P.O.Box 2582, Q.C.

**MEMORANDUM CIRCULAR No. 02**  
**Series of 2009**

**TO: ALL CONCERNED**

**FROM: The Executive Director**

**SUBJECT: Good Agricultural Practices for Aerial Spraying of Fungicide  
in Banana Plantations**

~~~~~

In line with the Fertilizer and Pesticide Authority's (FPA) mandate as provided in Presidential Decree (PD) No. 1144, the FPA is tasked to protect the public from the improper pesticides usage which presents serious risks to users, handlers and the public in general due to the inherent toxicity of these compounds which are, moreover, potential environmental contaminants.

Moreover, pursuant to Section 6, Part III, Paragraphs 1 and 2 of P.D. 1144, the FPA has the authority to determine specific uses or manner of use for each pesticide or pesticide formulation and to establish and enforce tolerance levels and good agricultural practices for use of pesticides in raw agricultural commodities.

In view thereof and in addition to the Food and Agriculture Organization Guidelines on Good Practices for Aerial Application of Pesticides, the following rules and regulations governing aerial spraying of fungicides are hereby promulgated:

**I. COVERAGE**

All banana plantation officers, staff, pilots, aerial pesticide spraying crew and service providers, pesticide companies and other individuals or firms who are involved in activities concerning aerial spraying of pesticide for the control of leaf diseases in all banana plantations.

**II. AERIAL APPLICATION OF PESTICIDE**

**1. Safety Procedures in Pesticide Spraying**

- a. All spray aircraft should have a Global Positioning System equipment including target flow controllers and flowmeters.
- b. Spray pilots must observe policy on dimensions of a "no spray boundary" (50-meter buffer zone) areas which should not be subjected to aerial spraying.





**Memorandum Circular on GAP for Aerial Spraying**

**August 3, 2009**

**= page 2 of 4 pages =**

~~~~~

- c. Altitude of spray aircraft should be within 5 to 7 meters above banana canopy.
- d. Delivery of fungicide spray solutions must be 20 to 40 liters per hectare.
- e. Swath must be 22 to 27 meters.
- f. There should be no spraying when there is an upward air movement or where the temperature inversion prevents the spray cloud settling within the treated area.
- g. Signages should be installed in strategic points to warn the public and plantation community of spraying schedules.
- h. Proper coordination with local authorities, particularly, barangay officials in the general areas where aerial spraying is scheduled on the time and scope of the activity.

**2. Safety in Handling of Pesticide**

- a. Pesticide and aviation fuel/lubricants should have separate storage area and be kept securely at all times.
- b. Emergency and first aid equipment should be kept in good condition, clearly marked and accessible to users.
- c. Facilities for washing and for storing Personal Protective Equipments (PPEs) should be available. "Dirty man in" and "clean man out" shower room should be provided in the mixing area.
- d. Handling and loading of pesticide should be supervised by an Accredited Responsible Care Officer (ARCO).
- e. Absorbent materials (sawdust or fine sand) should be available especially at the mixing area for contaminants of leaks and spills.

**3. Pesticide Safety – Post Application**

- a. Aircraft and spray equipment should be washed thoroughly inside and out in a concrete wash area and rinse liquid collected in the recycling tank for use in the next cycle using the same product. Rinsing should be made at least 3 times.
- b. PPEs should be thoroughly washed after every use.
- c. Materials used to contain leaks or spill should be correctly and safely disposed.
- d. An Aerial Spray Final Report (ASFR) should be kept and maintained/updated. ASFR information to include the following:
  - 1. Field number, size and location (map reference)
  - 2. Area/hectare sprayed
  - 3. Total volume of product used, dose and rate of application
  - 4. Application date and time
  - 5. Tank-mix information
  - 6. Information on pilot who undertook the spraying
  - 7. Aircraft type and registration and loading information
  - 8. "No-spray" barrier information/field marking method
  - 9. Operator's time log
  - 10. PPEs used

**III. QUALIFICATION, TRAINING AND ACCREDITATION**

**1. Pilot**

- a. License from the Air Transportation Office.
- b. FPA accreditation as a Certified Pesticide Applicator (CPA).
- c. Competence and knowledge in the use of pesticide as follows:
  - i. Appropriateness of pesticide formulation to be applied
  - ii. Correct dose/rate and manner of application
  - iii. Awareness of hazards in the use of the product
  - iv. First aid procedures

**2. Spray Operation Crew**

- a. Knowledge, experience and should be fully conversant with company procedures, operating manual and practices on safety in mixing and loading of pesticides in the aircraft hopper.
- b. Should have undergone training in safety on pesticide handling and the use of PPEs. Should attend annual training/upgrading program coordinated with the FPA.
- c. Spray crew supervisors should be accredited by the FPA as a CPA or as an ARCO, accreditation should be valid and updated.
- d. Should have knowledge and be fully conversant with procedures in case of pesticide exposure.

**IV. CHOICE, STORAGE AND CONDITON OF FUNGICIDE**

1. Only FPA-registered pesticide/fungicide should be used, a copy of the Material Safety Data Sheet (MSDS) should be available in the work site.
2. Products should be properly labeled and be transported and stored in its original container and package.
3. Containers should be regularly checked for leak and damage.
4. Inventory of fungicide should have a dedicated space in the warehouse.
5. Empty containers should be triple rinsed and should not be disposed for re-use in storage of food or feedstuff.

**V. SAFETY, HEALTH AND APPROPRIATE EQUIPMENT**

1. All personnel involved in pesticide handling and spray operation should undergo a regular health check to include annual physical examinations
2. Appropriate PPEs should be worn at all times during spraying operations.
3. Respirators should be checked regularly and filter elements replaced in accordance with manufacturer's instruction.



**Memorandum Circular on GAP for Aerial Spraying**

**August 3, 2009**

**- page 4 of 4 pages -**

~~~~~

4. Personal hygiene should be observed. Thorough washing with soap and water should be done after every pesticide application work.
5. Appropriate fire extinguishers should be provided and placed in conspicuous places.
6. Medical staff should have attended/undergone an Occupational Health Training program conducted by the Department of Health.
7. Annual safety seminar on handling of specific pesticide/fungicide should be conducted in coordination with the supplier.
8. First aid kit should be provided in every mixing station.

This memorandum shall take effect immediately and shall remain enforce until otherwise revoked.

For strict compliance.



**NORLITO R. GICANA, CESO III**  
Executive Director

August 3, 2009