



December 23, 2003

Memorandum Circular

No. 17

Series of 2003

Subject: Additional Requirements for the Insect Resistance Management (IRM) Strategy in Bt Corn

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Pursuant to: (1) the recommendations of a DA-commissioned study entitled "Asian Corn Borer Resistance Management Scheme for Bt Corn: A Prospective Approach in Philippine Setting; (2) BPI Permit to Propagate Bt Corn MON 810 issued last December 4, 2002, under the approval process set in DA AO No. 8 s. 2002, "Rules and Regulations on the Importation and Release Into The Environment of Plant and Plant Products Derived From The Use of Modern Biotechnology"; and (3) the expert advise of a DA pool of scientists on IRM, additional requirements shall be set in connection with the IRM strategy for the Asian Corn Borer (ACB).

Insect Resistance Management (IRM) refers to the deployment of a combination of strategies designed to reduce the risk of target insect (Asian Corn Borer) developing resistance to the product (Bt corn plant).

I. Science-Based Insect Resistance Management for ACB: The High Dose and Refuge

The combined high-dose/refuge strategy is appropriate for the resistance management of the ACB in the Philippines. The high dose guarantees over 99% protection from the ACB. The refuge serves as the source of Bt susceptible insects that may mate with any resistant insects emerging from Bt crops, thus maintaining population susceptibility. Refuge can either be structured and/or unstructured.

Given the current low level of adoption of Bt corn and the predominance of small-sized corn farms, the evolution of ACB resistance to Bt corn can be mitigated by the presence of a unstructured refuge represented by the diverse scattered production systems existing in the country. When adoption reaches high levels, a combination of unstructured and structure refuge may be more appropriate to manage the evolution of resistance.

II. The Current IRM Strategy

An unstructured refuge in the form of regulated sales is currently one of the conditions set in the approved 5-year permit to propagate Bt corn MON 810. The condition for IRM is regulated sales, i.e., the industry implements a market cap on the volume of sales at 95% in a given production area.

III. Revision to the Requirements for the IRM Strategy of the Industry

As revision to the above currently approved IRM plan of the industry, the following additional conditions require compliance:

- a. A structured refuge (80% Bt:20% non-Bt planted area) effected through a seed pack combination of 80% Bt: 20% non-Bt, bag-in-a bag, shall be implemented when one or both of the following triggers is breached:
 - (i) adoption rate of 80% Bt corn in a cluster/production area/system of contiguous 200 hectares or more; or
 - (ii) a period of two years after the implementation of this IRM strategy for the Bt corn technology;
- b. Monitoring of resistance development in coordination with the IRM Program Management Team of the DA; and
- c. Education of all stakeholders in collaboration with the DA;

Further, studies including but not limited to baseline population susceptibility, alternate hosts including the biology of the ACB and its alternate host preference, integrated pest management and insect biodiversity/management of the agro-ecosystems need to be completed by the industry and the Department to fill in information, within a two-year period after the issuance of this Memorandum Circular.

In addition, the DA Corn Program in collaboration with industry will pilot test the 80%Bt:20%non-Bt combination, bag-in-a-bag, to assess its practicality and feasibility, in anticipation of the implementation of this seed combination-bag-in-a-bag.

IV. Role of the DA on IRM

The Department of Agriculture shall play an active role in implementing the appropriate IRM Strategy. In addition to monitoring industry compliance, the DA shall provide support to related research studies, education of all stakeholders, and capability building of its agencies.

V. Review of the Insect Resistance Management

Pursuant to the risk assessment principles mandated under DA AO No. 8 s. 2002 and subject to (a) new information collected from any source including but not limited to any of the completed studies above; and/or (b) other Bt crop approvals for release into the environment, the relevant units of the Department of Agriculture are hereby instructed to revalidate the existing insect resistance management system to ensure that it adequately addresses mitigation of resistance development.

The DA would also conduct a periodic review of the IRM Strategy after every major cropping season, i.e. February and September of every year, including the conditions for the implementation of Section III.a.

This Memorandum Circular shall take effect immediately.

LUIS P. LORENZO, JR. (signed)
Secretary