



19 February 2004

PLANT BIOSECURITY POLICY MEMORANDUM 2004/02

REVISED DRAFT IMPORT RISK ANALYSIS REPORT - BANANAS FROM THE PHILIPPINES

This Plant Biosecurity Policy Memorandum (PBPM) is to notify stakeholders of the release of the revised draft import risk analysis (IRA) report for the importation of bananas from the Philippines.

In July 2002 Biosecurity Australia released a draft import risk analysis for bananas from the Philippines. Twenty submissions were received on the draft report, including substantial comments from the Philippines government and industry, the Australian Banana Growers' Council (ABGC) and the Western Australian Government.

Given the substantial nature of the various submissions and reports, and the widely varying technical viewpoints, the IRA team considered it appropriate to undertake an extensive review of the technical information concerning each of the quarantine pests identified in the IRA.

The revised draft IRA report recommends that the importation of bananas from the Philippines be allowed subject to specific quarantine conditions.

Biosecurity Australia has completed a revised draft IRA report for bananas from the Philippines. The executive summary is attached and the complete report is available from the departmental website at www.daff.gov.au/plantbiosecurity. Copies in either hard copy or CD ROM format can also be requested from Technical and Administrative Services. Comments on the revised draft IRA report should be received by Technical and Administrative Services by 23 April 2004 at the following address:

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Confidentiality

Stakeholders are advised that, subject to the *Freedom of Information Act 1982* and the *Privacy Act 1988*, all submissions received in response to Plant Biosecurity Policy Memoranda will be publicly

available and may be listed or referred to in any papers or reports prepared on the subject matter of the memoranda.

The Commonwealth reserves the right to reveal the identity of a respondent unless a request for anonymity accompanies the submission. Where a request for anonymity does not accompany the submission the respondent will be taken to have consented to the disclosure of his or her identity for the purposes of Information Privacy Principle 11 of the *Privacy Act 1988*.

The contents of the submission will not be treated as confidential unless they are marked 'confidential' and they are capable of being classified as such in accordance with the *Freedom of Information Act 1982*.

Consultation

If you wish to suggest inclusion of an additional stakeholder in our distribution list, or if you wish to be removed from the distribution list, please provide details to Technical and Administrative Services.

Information on all IRAs and policy reviews being conducted by Plant Biosecurity is available on the Internet at www.daff.gov.au/plantbiosecurity.

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EXECUTIVE SUMMARY – BANANA REVISED DRAFT IRA

In June 2000, Australia initiated an import risk analysis (IRA) on Philippines bananas following provision of necessary technical information by the Philippines Bureau of Plant Industry (BPI) in May 2000.

BPI in their submission requested a risk analysis of a proposal to export fresh mature hard green banana fruit to Australia. BPI proposed exports of four varieties of Cavendish (Extra Dwarf, Giant Cavendish, Grand Nain and Williams) and Gros Michel from the Mindanao region (Davao, Cotabato and Bukidnon) in the Philippines.

An IRA team (then referred to as a Risk Analysis Panel) was established to conduct the IRA. The members are:

Dr Cheryl McRae	Chair Senior Manager — Biosecurity Development and Evaluation Biosecurity Australia
Dr Sharan Singh	Manager — Plant Biosecurity Biosecurity Australia
Dr Rob Allen	Principal Policy Officer — Plant Health Queensland Department of Primary Industries
Dr Bryan Cantrell	Principal Policy Officer — Plant Health Queensland Department of Primary Industries
Mr Bob Paton	Policy Officer — Market Access New South Wales Agriculture
Mr David Peasley	Horticultural Consultant
Mr Mike Robbins	Manager — Grain, Seed and Nursery Stock Australian Quarantine and Inspection Service

The IRA team established three technical working groups to assist its consideration of pathogen, arthropod, and horticulture, environment and operational issues relevant to the IRA. In May 2001, Biosecurity Australia released an *Issues Paper* on the BPI proposal for stakeholder comment. In October 2001, following stakeholder comments on the *Issues Paper* and discussions with the Chairs of technical working groups during their visit to the Philippines, BPI clarified that the proposed export area of Davao means Davao del Sur, Davao del Norte and Davao Oriental and Cotabato means South Cotabato, North Cotabato and Sarangani. At the same time, BPI also advised Biosecurity Australia that the cultivar Gros Michel was no longer produced in Philippines banana plantations.

In June 2002, Biosecurity Australia released a *Draft IRA Report* for stakeholder comment. Twenty submissions were received on the draft report, including substantial comments from the Philippines Government and industry, the Australian Banana Growers' Council (ABGC) and the Western Australian Government. In addition to stakeholder submissions on the June 2002 *Draft IRA Report*, supplementary comments and reports relevant to the IRA were received from ABGC and the Philippines Government.

Given the substantial nature of the various submissions and reports, and the widely varying technical viewpoints, the IRA team considered it appropriate to undertake an extensive review of the technical information concerning each of the quarantine pests identified in the IRA. Additionally, the IRA team reviewed the various other technical issues arising from the submissions and reports.

As a consequence, the IRA team identified the need to make significant changes to the analysis as reported in the June 2002 *Draft IRA Report*. For this reason this report is issued as a *revised Draft IRA Report* that takes into account the stakeholder submissions and reports, and technical information available to the IRA team.

This *revised Draft IRA Report* describes the procedures followed to identify and assess the biosecurity risks associated with the importation into Australia of fresh mature hard green Cavendish banana fruit of four varieties (Extra Dwarf, Giant Cavendish, Grand Nain and Williams) from specified areas of Davao (Davao del Sur, Davao del Norte and Davao Oriental), Cotabato (South Cotabato, North Cotabato and Sarangani) and Bukidnon in the Mindanao region, the Philippines. The report also considers and evaluates, as appropriate, risk management measures. It presents recommendations on proposed biosecurity measures sufficient to ensure that Australia's appropriate level of protection (ALOP) is maintained.

This report contains the following:

- Australia's framework for biosecurity policy and IRAs, information on the background to this IRA, a summary of the banana industries in the Philippines and Australia, and Australia's biosecurity policies for fresh bananas;
- An outline of the methodology and results of pest categorisation, risk assessment and risk management;
- An assessment of contaminants of banana shipments from the Philippines;
- Draft quarantine import conditions for fresh mature hard green banana fruit from the Philippines;
- Information about further steps in the IRA process.

Australia's current biosecurity policies for fresh bananas

Fresh banana fruit for human consumption are not currently imported by Australia.

Fresh banana fruit may be imported for *in-vitro* laboratory work under secure quarantine conditions, and at Quarantine Approved Premises. Strict quarantine conditions are observed for these imports, including a requirement that packaging materials and containers be disposed of by incineration, autoclaving or other methods approved by the Director of Animal and Plant Quarantine. The goods in each consignment must be packaged securely and transported directly to a facility approved by AQIS for laboratory analysis. Samples must be in clean, new packaging and must be free from quarantine pests and other regulated articles (eg soil).

The importation of certain ‘banana products’ from several countries, including the Philippines, is permitted. Banana products include cooked, dried and canned or preserved product.

Movement of banana fruit and banana planting material within Australia may also be subject to intrastate and interstate quarantine restrictions dependent on State and Territory plant health concerns.

Import risk analysis

The technical component of an import risk analysis for plants or plant products is termed a ‘pest risk analysis’, or PRA¹. As stated in the International Plant Protection Convention’s International Standards for Phytosanitary Measures Publication Number 11 (ISPM 11 – Rev. 1) — *Pest Risk Analysis for Quarantine Pests including analysis of environmental risks*, a PRA comprises three discrete stages:

- initiation of the PRA;
- risk assessment; and
- risk management.

Initiation of this PRA

As described above, this IRA Report was initiated by a proposal from the Philippines to export fresh hard green Cavendish banana fruit to Australia. The following PRA flows from that proposal and is the technical component of the IRA Report. The PRA area considered in this report is Australia.

International standards to address the specific quarantine concerns associated with imports of bananas do not exist, nor has Australia completed a risk analysis of this commodity. In addition, Australia does not import fresh hard green Cavendish bananas for consumption from other countries, nor does it have existing import conditions upon which to base a response to the Philippines proposal.

¹ PRA is used throughout this document as an abbreviation of Pest Risk Analysis. The Australian Government Department of Agriculture, Fisheries and Forestry uses the term PRA to describe the technical component of an import risk analysis on plants or their products.

In consideration of these issues, an analysis of the biosecurity risk associated with fresh hard green bananas from the Philippines was required.

A list of pests likely to be associated with fresh hard green bananas from the Philippines (i.e. the biosecurity risk pathway) was generated from information supplied by the Philippines Government and banana industry, literature searches, databases and expert consultation. This list was used in the risk assessment stage of the PRA.

Pest Categorisation

Ninety-nine pests of bananas were categorised according to their presence or absence in Australia, their association with banana fruit, their potential to become established in Australia, and the potential consequences of establishment. From these, 22 were identified as quarantine pests and were the focus of individual risk assessments.

These pests are:

- Banana bract mosaic virus
- Banana bunchy top virus
- *Ralstonia solanacearum* Race 2 (Moko)
- *Guignardia musae* (freckle)
- *Mycosphaerella fijiensis* (black Sigatoka)
- *Fusarium oxysporum* f.sp. *cubense* (Panama disease)
- Mealybugs — *Dysmicoccus neobrevipes*; *Pseudococcus jackbeardsleyi*; *Rastrococcus invadens*
- Weevils — *Philicoptus demissus*; *P. iliganus*; *P. stringifrons*; *P. sp.1*; *P. sp.2*
- Hard scales — *Aspidiotus excisus*; *A. coryphae*; *Pinnaspis musae*
- Fruit flies — *Bactrocera occipitalis*; *B. philippinensis*
- Spider mites — *Oligonychus orthius*; *O. velascoi*; *Tetranychus piercei*

Additionally, other organisms that may enter Australia with shipments of Philippines bananas – ‘contaminants of banana shipments’ (as opposed to those quarantine pests that were identified as being pests of banana fruit) were considered to be of quarantine concern. Of these, 52 weeds were classified as quarantine pests. It was considered that other quarantine pests might also be found among five groups of possible non-weed contaminants of banana shipments (mammals, amphibians, reptiles, molluscs and arthropods).

Assessment and management of risk

The unrestricted biosecurity risk² was assessed by combining the estimates of the likelihoods of entry, establishment or spread of each quarantine pest or group of pests with the consequences of their entry, establishment or spread. Evaluation of consequences included harm to the environment, including impacts on native species.

In relation to **Moko, freckle**, and two species of **mealybugs** (*Dysmicoccus neobrevipes*; *Pseudococcus jackbeardsleyi*) the unrestricted biosecurity risk was assessed as being too high to meet Australia's ALOP. For all other pests of Philippines banana fruit, the unrestricted risk was assessed as being sufficiently low as to meet Australia's ALOP.³

The 2002 *Draft IRA Report* assessed the unrestricted biosecurity risk of black Sigatoka as being too high to meet Australia's ALOP. However, the IRA team, on reviewing the scientific evidence, considered that the unrestricted risk associated with black Sigatoka was in fact acceptable. Black Sigatoka is a *leaf* pathogen and not a pathogen of banana *fruit*. The finding that risk management is not required for black Sigatoka is based on a detailed assessment of, among other things, the likelihood of particulate leaf trash being associated with packed fruit, the likelihood of the fungus being on these tiny pieces of trash and the likelihood that the fungus would be viable, as well as the likelihood that the fungus, if present, would be distributed to a susceptible host.

Summary of risk management measures

Risk management describes the process of identifying and implementing measures to mitigate risks so as to achieve ALOP, or tolerance for loss, while ensuring that any negative effects on trade are minimised.

Various possible biosecurity measures to manage the identified risks for Moko, freckle, and mealybugs were considered, with key areas of focus being the need to reduce the risks associated with:

- symptomless infection for Moko and freckle and hence potential entry, establishment or spread of these diseases through imported fruit;
- transmission of freckle in particulate trash; and
- mealybug infestation, particularly in the spaces between banana fruit.

² Unrestricted risk estimates are those derived in the absence of specific risk management measures; or using only internationally accepted baseline risk management strategies. In contrast, restricted or mitigated risk estimates are those derived when 'risk management' is applied. In the case of this *Draft IRA Report*, unrestricted risk is the risk associated with fruit produced to the standard achieved through risk management practices used in the production, processing, quality control, packing, transport and shipment of fruit from the specified areas, as described in documentation provided by the Philippines, as well as pre-export and on-arrival quarantine inspections.

³ Note that fruit of all kinds entering Australia is subject to AQIS on-arrival inspection procedures. These procedures are focussed on both the commodity (packed fruit) and any packing materials that may be associated with it.

Moko

Two feasible risk management measures were identified for Moko: sourcing fruit for export from areas of low pest prevalence (ALPP); and restricting the distribution of Philippines bananas in Australia.

Bananas from the Philippines could be granted access if they were sourced from an Australian approved plantation area, which can demonstrate that the prevalence of Moko is below a level deemed acceptable by Australia – an ALPP. The low pest prevalence (LPP) level for Moko in an approved ALPP would not exceed 0.005 cases (infected mats) per hectare per week, which is about 1 case per 4 hectares per year – i.e. no more than one in 6,800 infected plants per year. This LPP level would be demonstrated by weekly surveys over a minimum period of 2 years immediately preceding harvest of fruit intended for export to Australia. If the prevalence of Moko exceeded the set LPP level, the affected area would be suspended for a minimum period of 2 years.

As an alternative to sourcing fruit from LPP areas within the Philippines, Philippines banana fruit could be granted access if the port of importation and the distribution of that fruit in Australia were restricted to those parts where commercial banana production does not occur. This measure would be in addition to the risk management practices used in the production and processing, quality control, packing, transport and shipment of fruit from the specified areas in the Philippines, as described in documentation provided by Philippines Department of Agriculture and described in this *Draft IRA Report*. Restricting the distribution of Philippines bananas in Australia could be implemented by the Australian Commonwealth Government using the *Quarantine Act 1908* and its subordinate legislation.

Each of these measures would provide security sufficient to meet Australia's ALOP. The major difference between sourcing fruit for export from areas of LPP and restricting the port of importation and the distribution of Philippines bananas in Australia is likely to be in relation to the time required and the administrative complexity of providing for their implementation. The administration of the restriction on the movement of Philippines banana fruit would require additional arrangements and resources to address such issues as monitoring, auditing and non-compliance. The cost of these arrangements and resources would be borne by importers or wholesalers also necessitating the need to develop infrastructure for cost recovery.

It was considered that the time required to develop the suite of legal, administrative and operational arrangements that would be necessary to give the restricted distribution of Philippines banana fruit practical application in Australia is likely to be longer than the time required to demonstrate areas with Moko prevalence at or below the specified LPP level. On this basis, the use of ALPP was considered to be the least trade restrictive of the two risk management options and is the recommended measure.

Freckle

Two feasible risk management measures were identified for freckle: sourcing fruit for export from areas of low pest prevalence; and restricting the distribution of Philippines bananas in Australia.

Bananas from the Philippines could be access if they were sourced from an Australian approved plantation area, which can demonstrate that the prevalence of freckle is below a level deemed acceptable by Australia – an ALPP. The low pest prevalence (LPP) level for freckle in an approved ALPP would not exceed 1 case per hectare per week – i.e. no more than one case per 1700 plants per week where a case is defined as the detection of freckle symptoms on any part of a mat from which a bunch could be harvested. This LPP would be demonstrated by weekly survey data over a minimum period of 4 weeks immediately preceding fruit harvest intended for export to Australia. If the prevalence of freckle exceeds the set level, the affected area shall be suspended for a minimum period of 4 weeks.

As an alternative to sourcing fruit from low pest prevalence areas within the Philippines, Philippines banana fruit could be granted access if the port of importation and the distribution of that fruit in Australia was restricted to those parts where commercial banana production does not occur. This measure would be in addition to the risk management practices used in the production, processing, quality control, packing, transport and shipment of fruit from the specified areas in the Philippines, as described in documentation provided by Philippines Department of Agriculture and described in this *Draft IRA Report*. Restricting the distribution of Philippines bananas in Australia could be implemented by the Commonwealth Government using the *Quarantine Act 1908* and its subordinate legislation.

Each of these measures would provide security sufficient to meet Australia's ALOP. The major difference between using ALPPs and restricting the distribution of Philippines banana fruit in Australia is likely to be in relation to the time required and the administrative complexity of providing for their implementation. The administration of the restriction on the movement of Philippines banana fruit would require additional arrangements and resources to address such issues as monitoring, auditing and non-compliance. The cost of these arrangements and resources would be borne by importers or wholesalers also necessitating the need to develop infrastructure for cost recovery.

It was considered that the time required to develop the suite of legal, administrative and operational arrangements that would be necessary to give the restricted distribution of Philippines banana fruit practical application in Australia is likely to be longer than the time required to demonstrate areas with freckle prevalence at or below the specified LPP level. On this basis, the use of ALPP was considered to be the least trade restrictive of the two risk management options and is the recommended measure.

Mealybugs

Additional packing station measures would be required to reduce the biosecurity risk associated with the mealybugs *D. neobrevipes* and *P. jackbeardsleyi* to meet Australia's ALOP. While no individual risk management measures were identified, a combination of targeted inspection of the spaces between banana fingers by quality assurance staff and targeted sponging and brushing between banana fingers by packing station staff assigned to these duties was considered to be the least trade restrictive risk management measure combination that would bring the risk within Australia's ALOP.

Weeds and other contaminants of banana shipments

Risk assessments were carried out for the 52 weeds identified as quarantine pests. Eleven weeds were identified as requiring risk management to reduce the risks of entry, establishment or spread to an acceptable level. These risks could be managed by a suite of practical measures discussed in this report, relating to the packaging materials used and to packing and transport procedures.

Because likelihood of entry, establishment or spread of non-weed contaminant organisms of banana shipments from the Philippines was considered negligible, the overall risk was not considered sufficient to require management beyond that already proposed for weeds, except that fruit, packing materials and transport vehicles must also be free from the groups of non-weed contaminants (mammals, amphibians, reptiles, molluscs and arthropods).

Quarantine conditions

The *revised Draft IRA Report* outlines a set of conditions for the importation of Philippines bananas. The quarantine conditions described in the report are based on the risk assessment and risk management conclusions from this IRA. Specifically, they flow from the evaluation of risk management options. The conditions are in addition to the risk management practices used in the production, processing, quality control, packing, transport and shipment of fruit from the specified areas in the Philippines, as described in documentation provided by Philippines Department of Agriculture.

The quarantine conditions recommended for the importation of Philippines bananas deal comprehensively with the risks identified in the IRA. A rigorous through-chain systems approach, dealing with all key points in the import pathway, is applied to protect Australia's favourable plant health status and to verify the integrity of the measures applied.

Biosecurity Australia considers that the quarantine conditions i.e. the risk management measures recommended in this report are the least trade restrictive means of ensuring that Australia's ALOP would be met and are commensurate with the identified risks. Biosecurity Australia invites technical comments on their economic and practical feasibility.

Alternative measures for managing risk may be accepted, generally or on a case-by-case basis if the proponent can demonstrate that they provide an equivalent level of quarantine protection. Those seeking to propose alternative risk management measures should provide a submission for consideration. Such proposals are welcome and should include supporting scientific information and describe how the alternative measures would meet Australia's ALOP.

Conclusion

This *revised Draft IRA Report* recommends that import of fresh hard green bananas from the Philippines be permitted subject to certain conditions.

In accordance with the process for conducting IRAs as outlined in the *Import Risk Analysis Handbook*, established by the Australian Government Department of Agriculture, Fisheries and Forestry's Biosecurity Australia, comments are invited on this *revised Draft IRA Report*. Submissions should reach Biosecurity Australia within 60 days of publication of this report. The *Final IRA Report* will take into account any comments received on this draft as well as any new information that may come to hand. The *Final IRA Report* will be open to appeal for a period of 30 days after its release.