

European regulatory constraints on pesticide use for tropical products exported to the European Union

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CIRAD assistance to export chains

SINCE 1991, the European Union has attempted to harmonise pesticide use regulations between its member states.

Diagram 1 shows the different scenarios faced by producers and exporters from countries of the African-Caribbean-Pacific zone (ACP).

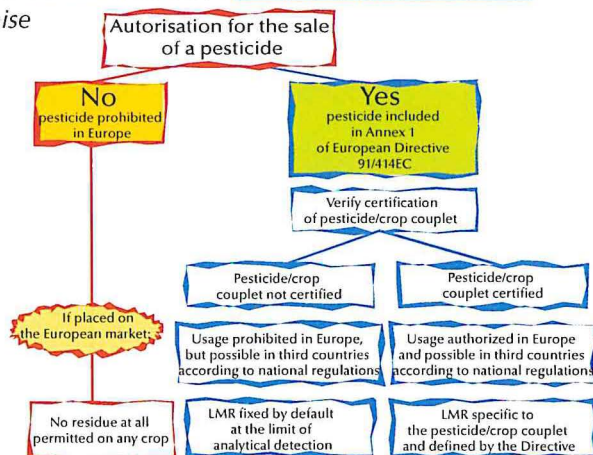


Diagram of pesticides certification – definition of LMRs

Objectives

The Pesticides Initiative Programme (PIP), implemented by the Europe/Africa-Caribbean-Pacific Liaison Committee (COLEACP), was created by the European Union at the request of

the ACP countries. It was assigned two objectives:

- to enable companies exporting horticultural products to conform to European standards concerning sanitary quality and traceability;
- to strengthen the place of small producers within horticultural export chains.

Cirad has participated in this programme in five West African countries on three export chains: pineapple and papaya (Ivory Coast and Ghana), and mango (Guinea, Mali and Senegal).

Approach

The experience gained by Cirad teams has permitted an integrated approach to be proposed that incorporates technical assistance, research and training. Our aid to companies is not limited to technical assistance alone. It proceeds through five phases, which we illustrate by the case of mango.



The pesticide salesman also plays the role of adviser

Preliminary bibliographical studies and initial contacts with companies

- Characterisation of the export chain; expectations of product quality
- Description of food safety context: potential dangers, risk perception by the producers
- Description of regulatory context

Inventory and initial recommendations

- In situ evaluation of food safety risks
- Description of practices and identification of pesticides used
- Characterization of the technical and scientific environment:
- Routes for the recommendation and distribution of pesticides
- Presence and reliability of analytical laboratories
- Information and experimental centres
- Immediate recommendations

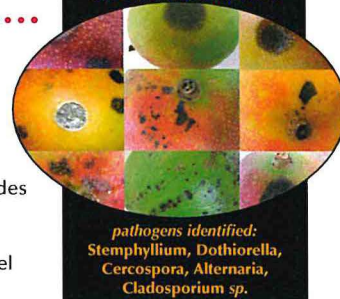
Analysis of initial results and definition of supplementary needs

- Prioritisation of identified needs
- Identification of additional research needed on pests and pathogens with a significant impact on production
- Identification of additional studies needed on pesticides within a given production zone: trials of efficacy and on residues
- Identification of training needs for technical personnel from companies and extension services

Implementation of experimental programmes and studies

- Identification of pests and study of population dynamics
- Identification of pathogens: correlation of symptoms/pathogens and modes of contamination

Black spots, symptoms traditionally associated with anthracnose



pathogens identified: Stemphylium, Dothiorella, Cercospora, Alternaria, Cladosporium sp.

RESIDUES TRIALS					
Insecticides to control fruit fly on mango in Mali					
(GAP: number of treatment = 2, interval between application = 10 days)					
active ingredient	Spinosad	Deltamethrine	Malathion	Imidaclopride	Bifenthrin
Dose (g) (a.i. / ha)	spot treatment	12	1000	100	50
Residues / days after last treatment					
1	<LOQ	0.018	0.512	0.076	0.31
4	<LOQ	0.033	0.043	0.080	0.12
7	<LOQ	0.031	0.095	0.095	0.13
14	<LOQ	0.020	<LOQ	0.086	0.07
21	<LOQ	<LOQ	<LOQ	0.018	0.13
Current U.E MRL	0.01	0.05	0.5	0.05	0.05

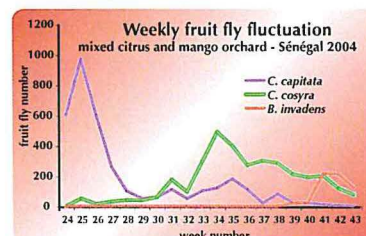
Comply with current EU MRL
No comply with current EU MRL
LOQ = Limit of quantitation

Transfer of results to actors in the export chain

- Revised technical specifications including a preventative approach to the management of food safety risks and the use of warning systems
- Practical training and technical workshops
- Participation in the Question/Answer forum on the PIP website

Conclusion

Other than the recommendations on pesticide use, the resulting advice allows the rational management of food safety risks based above all on the precise identification of the risks, prevention and warning systems. The proposed technical specifications can also be used to improve the quality of products destined for export as well as for national markets.



Fruit fly trap



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