Phasing out Highly Hazardous Pesticides in Costa Rica

Project fact sheet (2): Summary of carbofuran and other recent pesticide ban decisions in Costa Rica

Prepared by IRET and PAN UK for Rotterdam CRC-12, August 2016

This factsheet lists recent Costa Rican prohibition decisions on four HHPs and summarises the rationale for the carbofuran decision. All decrees listed in the table below prohibit the registration, import, export, manufacture, formulation, storage, distribution, transport, repackaging, decanting, handling, sale, mixing or use of [technical] ingredients and formulated products containing the relevant pesticides.

Active ingredient	Ministerial Decree	Date of final use	Notes
aldicarb	38678-MAG-S-MINAE-MTSS 19/11/2014	19/05/2015	6 month period to use up stocks. All registered products were cancelled
alachlor	38677-MAG-S-MINAE-MTSS 04/03/2015	04/09/2015	6 month period to use up stocks. Only one registered product was relevant, close to its approval expiry.
endosulfan	38834-MAG-S-MINAE-MTSS 30/03/2015	30/09/2015 for uses except coffee	6 month period to use up stocks. Six products were registered for crops other than coffee.
	Exceptional dispensation for use in coffee	30/03/2017	24 month grace period granted ***ONLY for use against coffee berry borer Hypothenemus hampei*** in coffee. 5 technical material + 11 formulated products (of which 5 were approved in coffee). From end Sept 2016 all those handling endosulfan should use up stocks [i.e. last permitted use in coffee groves would be Jun-Sept 2016 during borer attack period]
carbofuran	38713-MAG-S-MINAE-MTSS 04/12/2014	04/06/2015	6 month period to use up stocks. 10 formulated products + 3 technical materials.
	Exceptional dispensation for use in pineapple & banana	04/12/2016	24 month grace period granted ***ONLY for granular formulations*** use in pineapple and bananas. From early June 2016 all those handling carbofuran should use up stocks

Source: adapted/translated from official decree summary tables (in Spanish) and other information provided by IRET, Aug 2016. Joint decrees are issued by Ministries of Agriculture (MAG); Health (S); Environment & Energy (MINAE); and Work & Social Security (MTSS).

Summary of prohibition rationale for carbofuran

The following argumentation and issues were used in the Costa Rican regulatory decision, along with requirements on the two year temporary exceptional uses granted:

- Due to its high toxicity, carbofuran represents a potential risk to people exposed occupationally and to consumers of plant products which have been treated with the pesticide

- Ecotox. studies have shown that this pesticide is: highly toxic to non-target insects; very highly toxic to mammals, birds, fish and to fresh water, estuary and marine invertebrates.
- Carbofuran is persistent in soils and water, only being degraded by hydrolysis in alkaline conditions. It has high mobility in soils and can therefore filter into groundwater or reach surface waters via run-off. It breaks down into toxicologically relevant metabolites. For all these [ecotox & environmental fate] reasons, use of carbofuran constitutes as potential environmental risk.
- At the XXIII meeting of the Health Ministries of Central America & Dominican Republic (RESSCAD) held in Honduras in 2000, agreement number IX establishes application of more effective legal controls tending towards prohibition and restriction of pesticides which cause major morbidity-mortality in the Central American region
- Executive Decree 34149-S-MAG-TSSMINAE (2008) aims to regulate the registration, importation, re-export, manufacture, formulation, repackaging, refilling, storage, sale, mixing, trading and use of raw material and formulated products containing the agricultural pesticide carbofuran but its application has been insufficient to eliminate or minimise the occupational risk associated with its use.
- Use of carbofuran is authorised in Costa Rica in several crops, short term, annual and perennial, including those for raw consumption and via cooking. For these, carbofuran can currently be substituted by other pesticides, with the exception of uses in pineapple and banana.
- For control of pests in pineapple there are chemical and non-chemical alternatives which currently give good results, delivering a reduced chemical load, compared with use of carbofuran. The exception is for control of snail pests *Opeas pumilium*, for which carbofuran is currently the only alternative chemical authorised.
- For control of pests in banana, carbofuran is currently used along with other nematicide products, as part of a rotation programme, to avoid nematode resistance or biodegradation of pesticides by microorganisms present in the soil.

Summary restrictions and requirements for exceptional uses permitted

- Can only be distributed and sold to users under prescription from an agricultural science qualified person registered with the College of Agricultural Engineers
- Product labels must indicate restricted uses and only under agronomist prescription
- Only dust-free, granular products containing max. 100g carbofuran per kg and only in minimum pack sizes of 10kg
- Application only directly into soil via manual or mechanised equipment for granules
- Distributors and vendors must have stewardship programmes in place to verify correct agronomic use and protect human health and environment
- Can only be applied by trained personnel using appropriate PPE and taking safety measures (as specified in national legislation from 1988)
- Detailed records must be kept by all handlers of all use, transport, sales, etc.

Source: paraphrased translation by PAN UK of excerpts from official decree 38713-MAG-S-MINAE-MTSS published in La Gazeta Oficial issue 234, 04/12/2014, pp. 6-8