



කෘෂිකර්ම දෙපාර්තමේන්තුව
விவசாயத் திணைக்களம்
DEPARTMENT OF AGRICULTURE

පළිබෝධනාශක රෙජිස්ට්‍රාර් කාර්යාලය
படைகொல்லி பதிவு அலுவலகம்
Office of the Registrar of Pesticides

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RP/VIII/A₁

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29.10.2020

Circular No. RP/2020/Label/Add-1

To: All Members of CropLife, Sri Lanka/
Members of the Pesticide Industry:

Dear Sir/Madam,

Pesticide Labelling Requirements Concerning Honey Bee Toxicity

As you are aware, certain pesticides have been found to be highly toxic or moderately toxic to honey bees and pollinator insects by direct treatments. These toxicants are classified on acute toxicity to bees by contact and/ or by oral poisoning through contaminated pollen and nectar due to direct spraying on crops or spray depositions *via* drifts or by long lasting residues. Accordingly, the products having oral and/ or contact acute lethal dose 50 (LD₅₀) of <2 µg per bee are classified as **highly toxic** and LD₅₀ between 2-11 µg per bee as **moderately toxic**. The conveyance of adequate warnings and precautionary symbols and statements on toxicity are exemplary requirements on **pesticide labels** under the sub-section (f) of Section 8 & **any advertising materials** under the sub-section (1) of Section 18 of the Control of Pesticides Act No.33 of 1980.

With the concerns on pollination and pollinator decline in the global context, Registrar of Pesticides as the responsible authority for regulating hazards of pesticides on beneficial insects, kindly request to include adequate warnings and precautionary symbols and statements at the next amendment of labels/leaflets or compulsorily at re-registration point on products **highly toxic** and **moderately toxic** on bees as established by standard tests.

The warnings and precautionary symbols and statements should be mentioned as follows:

- The standard statement for highly bee toxic products to read as “*this pesticide is highly toxic to bees exposed by direct treatment or by spray drift and thus should be avoided on crops at blooming stage or during active foraging periods of bees*” (equivalent Sinhala text “මෙම පළිබෝධනාශකය සෘජුව හෝ බිඳිති ගසාගෙන යාමෙන් මී මැස්සන්ට අධික විෂ සහිත වන බැවින් බෝගයේ මල් පිපෙන අවධිවල දී සහ මී මැස්සන් සක්‍රීයව ගැවසෙන කාලවල දී නොයෙදිය යුතුය.”).
- The standard statement for moderately bee toxic products to read as “*this pesticide may be toxic to bees exposed by direct treatment and thus may be avoided on crops at blooming stage or during active foraging periods of bees*” (equivalent

Sinhala text “මෙම පළිබෝධනාශකය සෘජුව මී මැස්සන්ට විෂ සහිත විය හැකි බැවින් බෝගයේ මල් පිපෙන අවධිවල දී සහ මී මැස්සන් සක්‍රීයව ගැවසෙන කාලවල දී නොයෙදීම සුදුසුය”.

- The above statements must be immediately below the last raw of the recommendation (Figure 1A and 1B).
- The equivalent Tamil text should be stated.

Recommendation for Use		Directions for Use	
CROP	PEST	DILUTION	RATE OF APPLICATION
XX	XX	XX	XX
“This pesticide is highly toxic to bees exposed by direct treatment or by spray drift and thus should be avoided on crops at blooming stage or during active foraging periods of bees” “මෙම පළිබෝධනාශකය සෘජුව හෝ බිඳිති ගසාගෙන යාමෙන් මී මැස්සන්ට අධික විෂ සහිත වන බැවින් බෝගයේ මල් පිපෙන අවධිවල දී සහ මී මැස්සන් සක්‍රීයව ගැවසෙන කාලවල දී නොයෙදිය යුතුය”. <i>(Sinhala & Tamil texts are mandatory).</i>			

Figure 1A- For highly bee toxic products

Recommendation for Use		Directions for Use	
CROP	PEST	DILUTION	RATE OF APPLICATION
XX	XX	XX	XX
“This pesticide may be toxic to bees exposed by direct treatment and thus may be avoided on crops at blooming stage or during active foraging periods of bees” “මෙම පළිබෝධනාශකය සෘජුව මී මැස්සන්ට විෂ සහිත විය හැකි බැවින් බෝගයේ මල් පිපෙන අවධිවල දී සහ මී මැස්සන් සක්‍රීයව ගැවසෙන කාලවල දී නොයෙදීම සුදුසුය”. <i>(Sinhala & Tamil texts are mandatory).</i>			

Figure 1B- For moderately bee toxic products

The following pictogram (Figure 2) should be inserted next to the other pictograms on the colour band.



Figure 2- Pictogram to be used in highly and moderately bee toxic pesticides

There is a considerable certainty that formulation counterparts are on par with the predictable risk on honey bees based on their active ingredients (e.g. *Honeybee pesticide poisoning: a risk management tool for Australian farmers and beekeepers*, Publication No. 12/043, Project No. MT10060 www.rirdc.gov.au). Non-exhaustive lists of pesticides classified by standard toxicity tests by oral and/ or contact acute lethal dose 50 (LD₅₀) of <2 µg per bee classified as **highly toxic** and LD₅₀ between 2-11 µg per bee as **moderately toxic** are shown in **Table 1 & Table 2**, respectively. The above list may be amended with the availability of toxicity data. Please note that the worst-case oral and/ or contact acute lethal dose 50 (LD₅₀) will be used for warnings and precautionary symbols and statements on product labels & any advertising materials.

I presume that the above information would be of help for revising the product labels and look forward your cooperation in this regard. Further, if you need any clarification please do not hesitate to contact me.


Dr. J.A. Sumith
Registrar of Pesticides

i.c. Director General of Agriculture –FYI, please.



Table 1. Pesticides classified as highly bee toxic (active ingredient < 2µg/bee)

Pesticide active ingredient	Acute LD ₅₀	
	Oral (a.i. µg/ bee)	Contact (a.i. µg/ bee)
Abamectin	0.0044*	0.0023*
Acephate	1.2	1.37
Bifenthrin	0.1	0.015
Carbosulfan	1.04	0.18
Clothianidin	0.004	0.022
Cyantraniliprole	>0.1055	>0.0934
Cyfluthrin	-	0.037
Deltamethrin	0.07	0.0015
Diazinon	0.09	0.13
Dinotefuram	0.0076	0.024
Emamectin benzoate	0.41	-
Esfenvalerate	-	0.0172
Dinotefuran	0.023	0.047
Etofenprox	0.27	>0.13
Fipronil	0.004	0.006
Imidacloprid	0.0037	0.078
Indoxacarb	0.26	0.094
Lambda-cyhalothrin	0.91	0.094
Monocrotophos	0.02	-
Permethrin	0.13	0.024
Profenofos	-	0.095
Quinalphos	0.07	-
Spinosad	0.057	0.0036
Spinoteram	0.14	0.024
Sulfoxaflor	0.146	0.379
Thiamethoxam	0.005	0.024
Thiodicarb	0.153	3.1

Note: Pesticides mixtures are classified based on the oral/ contact toxicity of the highest bee toxic component present in the mixture; LD₅₀ (48-H); *LD₅₀ other than 48-H.

Table 2. Pesticides classified as moderately bee toxic (active ingredient >2 <11 µg/bee)

Pesticide active ingredient	Acute LD ₅₀	
	Oral (a.i. µg/ bee)	Contact (a.i. µg/ bee)
Acetamiprid	14	7.9
Azadirachtin	3.7	6.1
Chlorantraniliprole	104	4
Coumaphos	20	4.6
Diafenthiuron	2.1	1.5
Fenpyroximate	0.1	11
Flutolanil	209	11
Thiacloprid	8.51	14.6