

Table 2. Risk to non-target organisms at verified dose rates against the Desert Locust (Table 1). Risk is classified as low (L), medium (M) or high (H). See Table 3 for the classification criteria.

Insecticide	Environmental risk									WHO toxicity class for active ingredient [§] (human)
	Aquatic organisms		Terrestrial vertebrates			Terrestrial non-target arthropods				
	fish	arthropods	mammals	birds	reptiles	Bees	antagonists	soil insects		
bendiocarb	M ²	L ³	M ¹	L ³	-	H ¹	H ²	M ³	II	
chlorpyrifos	M ³	H ²	L ³	M ³	M ³	H ¹	H ³	-	II	
deltamethrin	L ³	H ³	L ¹	L ³	L ³	M ¹	M ³	M ³	II	
diflubenzuron (blanket)	L ³	H ³	L ¹	L ¹	-	L ^{1?}	M ²	M ³	U	
diflubenzuron (barrier) *	L	(H)	L	L	-	L [?]	L ³	(M)	U	
fenitrothion	L ³	M ³	L ³	M ³	-	H ¹	H ³	H ³	II	
fipronil (blanket)	L ²	L ^{2f}	L ¹	L ¹	-	H ¹	H ³	H ³	U	
fipronil (barrier) *	L	L	L	L	-	(H)	(H)	(H)	U	
(imidacloprid) [†]	L ¹	L ¹	L ¹	L ¹	-	H ¹	L ³	L ³	II)	
lambda-cyhalothrin	L ²	H ²	L ¹	L ¹	-	M ¹	M ³	H ²	II	
malathion	L ²	M ²	L ³	L ³	-	H ³	H ³	H ³	III	
<i>Metarhizium anisopliae</i> (IMI 330189)	L ²	L ²	L ¹	L ¹	L ²	L ³	L ³	L ³	U	
teflubenzuron (blanket)	L ¹	H ²	L ¹	L ¹	-	L ^{1‡}	M ¹	-	U	
triflumuron (blanket)	L ¹	H ²	L ¹	L ¹	L ³	L ^{1‡}	L ³	L ³	U	
triflumuron (barrier) *	L	(H)	L	L	-	L [‡]	L	L	U	

The index next to the classification describes the level of availability of data: ¹ classification based on laboratory and registration data with species which do not occur in locust areas; ² classification based on laboratory data or small scale field trials with indigenous species from locust areas; ³ classification based on large scale field trials and operational data from locust areas (mainly Desert Locust, but also Migratory and Brown Locust). The actual WHO toxicity class of the formulated insecticide may differ slightly from the one given here due to the effect of the solvents, or when lower formulation concentrations are used.

* The risk of barrier treatments is extrapolated from blanket treatments, but is expected to be considerably lower if at least 50% of the area remains uncontaminated and if barriers are not sprayed over surface water. Risk classes are therefore shown in brackets unless the blanket treatment was already considered to pose low risk, and no reference is made to the level of data availability. More field data are needed to confirm that products posing a medium or high risk as blanket sprays can be downgraded to "L" when applied as barrier sprays; ^f see comment in paragraph 54; [†] field data only available from the Madagascar Migratory Locust area; [‡] at normal use, diflubenzuron is not harmful to the brood of honey bee; [‡] benzoylureas are safe to adult worker bees but some may cause damage to the brood of exposed colonies; [§] WHO class: II = moderately hazardous, III = slightly hazardous, U = unlikely to present acute hazard in normal use; - : no data available

Source: Evaluation of field trials data on the efficacy and selectivity of insecticides on locusts and grasshoppers. Report to FAO by the Pesticide Referee Group, Eighth Meeting, Rome, 11 – 14 October 1999. FAO, Rome