

Table 10.1.1. Occupational Handler Exposure and Risk Estimates for Bromuconazole Use on Roses in Greenhouses.							
Scenario	Application Rate ¹ (lb ai/cu ft)	Route of Exposure	Unit Exposure ² (mg/lb ai)	Units Treated ³	Average Daily Dose ⁴ (mg/kg/day)	MOE ⁵	Combined MOE ⁶
Mixer/Loader – Liquids for Groundboom	0.01957 lb ai/A	Dermal	0.220	60 Acres	0.00374	11,000	11,000
		Inhalation	0.000219		0.00000372	2,700,000	
Applicator Liquids for Groundboom	0.01957 lb ai/A	Dermal	0.0786	60 Acres	0.00134	30,000	29,000
		Inhalation	0.00034		0.00000578	1,700,000	
Mixer/Loader/Applicator– Liquids Sprays with Backpack	0.0001957 lb ai/gal	Dermal	13.2	40 gals	0.00149	27,000	26,000
		Inhalation	0.14		0.0000159	630,000	
Mixer/Loader/Applicator– Liquids Sprays with Manually Pressurized Handwand	0.0001957 lb ai/gal	Dermal	100	40 gals	0.0113	3,500	3,500
		Inhalation	0.03		0.00000341	2,900,000	
Mixer/Loader/Applicator– Liquids Sprays with Mechanically Pressurized Handgun	0.0001957 lb ai/gal	Dermal	3.5	1000 gals	0.00993	4,000	3,500
		Inhalation	0.12		0.000341	29,000	

¹ Maximum Application Rate (see Table 3.3.1).

² Unit Exposure = mg ai/lb ai handled from the Pesticide Handler Exposure Database (PHED) or the Agricultural Handlers Exposure Task Force (AHETF). Dermal unit exposure is for single layer with no gloves.

³ Units Treated taken from Science Advisory Council for Exposure, Standard Operating Procedure 9.1, Standard Values for Daily Area Treated in Agriculture, Rev. 25 SEP 2001.

⁴ Average Daily Dose (ADD) = Unit Exposure × Application Rate × Units Treated ÷ Body Weight (69 kg).

⁵ Margin of Exposure (MOE) = POD (mg/kg/day) ÷ ADD (mg/kg/day). Dermal LOC = 100; Inhalation LOC = 100.

⁶ Combined MOE = 1/[(1/MOE_{dermal}) + (1/MOE_{inhal})].