

Fact Sheet: Pesticide Buffer Zones for Orchard Spraying

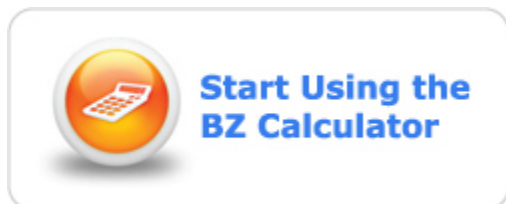


When applying orchard pesticides, applicators have to take into consideration the pest being controlled, the correct pesticide dosage, human health risk related to the pesticide and its impact on non-targeted pest (environmental issues). In recent years, more emphasis has been placed on spray drift and its impact on the environment. Most pesticide labels now contain information on the required distance between site of spray application and environmentally sensitive areas (buffer zone). A buffer zone is defined by PMC (Pest Management Centre) as the distance between the point of direct pesticide application and the nearest **downwind** boundary of a sensitive habitat, unless otherwise specified on a product label. A buffer zone is also referred to as a setback or a no-spray area. A sensitive area is defined as an area containing or comprised of organisms that are affected by the pesticide being applied. A sensitive area may be aquatic (including both permanent and non-permanent aquatic areas), terrestrial (e.g., shelterbelts and woodlots) or a combination of (e.g., wetlands, riparian zones, wet meadows, marshes, swamps, fens and bogs).

Aquatic areas may vary over time. Some, such as lakes, are present throughout the season, whereas others, such as sloughs, may be seasonal, temporarily holding water for only part of the season. Seasonal aquatic areas, that have no water present at the time of application, i.e., are dry, would not need to have aquatic buffer zones observed. Temporary aquatic areas resulting from flooding of or drainage to low lying areas do not generally need to be buffered. The depth of the aquatic area and type of aquatic area can influence the distance of the buffer zone. Quite often aquatic areas of less than one meter in depth have greater buffer zone than areas with a depth of greater than one meter. Estuarine/marine areas can have different buffer zones than those of fresh water and likewise the depth of the Estuarine/marine body of water can influence the distance of the buffer zone.

A sensitive terrestrial area is defined as any area within or adjacent to a spray area that consists of vegetation at risk, such as, but not limited to, a forest, woodlot, shelterbelt, meadow, hedgerow, riparian vegetation or rangeland.

It is the applicator's responsibility to identify the sensitive areas within and adjacent to treated fields. Growers can modify the size of the buffer zone based upon weather conditions at the time of spraying and their sprayer configuration. The BZ calculator can be used to determine if the buffer zone can be adjusted.



The following tables provide buffer zone distance for pesticides listed in the 2011/2012 NS Orchard Management Schedule. Not all pesticide labels have buffer zone restrictions.

Table 1: Buffer Zones for Fungicides listed in 2011/2012 Nova Scotia Orchard Management Schedule						
Product	Growth Stage of Trees	Buffer Zones in meters. The point of application to the nearest downwind boundary of a sensitive area.				
		Fresh Water		Estuarine/Marine		Terrestrial
		< 1 m	> 1 m	< 1 m	> 1 m	
Allegro		45	45	40	40	-
Equal/Syllit	Early	65	55	25	15	2
	Late	55	45	15	10	1
Flint	Early	17	13	17	13	1
	Late	9	6	9	6	1
Inspire	Early	25	4	15	5	-
	Late	15	2	5	3	-
Kumulus		5	5	5	5	-
Microscopic Sulphur		5	5	5	5	-
Nova		15	15	15	15	-
Nustar		5	5	5	5	-
Pristine	Early	45	25	15	15	1
	Late	35	30	5	5	1
Scala	Early	15	1	15	1	-
	Late	5	1	15	1	-
Sovran		7	7	7	7	3
Vanguard		30	30	30	30	-

Table 2: Buffer Zones for Insecticides listed in 2011/2012 Nova Scotia Orchard Management Schedule

Product	Growth Stage of Trees	Buffer Zones in meters. The point of application to the nearest downwind boundary of a sensitive area.				
		Fresh Water		Estuarine/Marine		Terrestrial
		< 1 m	> 1 m	< 1 m	> 1 m	
Actara	Early	2	0	-	-	10
	Late	1	0	-	-	4
Admire/Alias		40	40	40	40	-
Assail		30	30	30	10	-
Beleaf		-	-	-	-	1
Calypso	Early	45	15	45	15	-
	Late	20	5	20	5	-
Clutch	Early	25	15	5	2	1
	Late	15	5	3	1	1
Confirm		15	15	15	15	-
Decis		15	15	15	15	-
Delegate	Early	40	30	40	30	2
	Late	30	25	30	25	1
Imidan		45	35	45	35	-
Intrpid	Early	10	3	10	3	-
	Late	4	2	4	2	-
Matador/Warrior		80	80	80	80	-
Movento	Early	-	-	-	-	2
	Late	-	-	-	-	1
Pounce	Early	15	15	15	15	-
	Late	15	15	15	15	-
Rimon	Early	75	70	80	80	30
	Late	65	60	70	70	20
Ripcord		15	15	15	15	-
Success	Early	2	2	2	2	-
	Late	1	1	1	11	-
Warrior		80	80	80	80	-

Table 3: Buffer Zones for Miticides listed in 2011/2012 Orchard Management Schedule						
Product	Growth Stage of Trees	Buffer Zones in meters. The point of application to the nearest downwind boundary of a sensitive area.				
		Fresh Water		Estuarine/Marine		Terrestrial
		< 1 m	> 1 m	< 1 m	> 1 m	
Acramite	Early	2	2	3	3	-
	Late	2	2	2	2	-
Agri-Mek	Early	45	45	75	75	-
	Late	35	35	65	65	-
Apollo	-	-	-	-	-	-
Carzol	-	-	-	-	-	-
Envidor		2	2	2	2	-
Kanemite	Early	15	5	35	30	
	Late	5	3	30	20	
Kelthane		-	-	-	-	-
Nexter		49	49	49	49	-
Superior Oil		20	10	3	1	-

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