
















Pesticides Monitored in North Dakota as a Part of the Agricultural Groundwater Monitoring Program

Updated January 2021

Key:


Pesticide Type		Use Restrictions		Controls				Abbreviations
	Fungicide		Not Restricted in North Dakota		Broadleaf Weeds		Insects	MCL – Maximum Contaminant Level
	Herbicide		Restricted Use		Woody Plants		Mites	HAL – Health Advisory Level
	Insecticide		Not Registered		Grasses		Fungi	PAL – Prevention Action Level (25% MCL/HAL)
	Degradate		Banned in the United States		Weeds (General)			NE – Not Established µg/L – Micrograms per Liter




Maximum Contaminant Levels are set by United States Environmental Protection Agency for public drinking water systems. Health Advisory Levels are set by the United States Environmental Protection Agency for lifetime exposure to the chemical. Prevention Action Levels are concentrations that trigger action to prevent further contamination; the level is defined as 25% of the MCL/HAL in the North Dakota Pesticide State Management Plan.





Listed trade names are not a comprehensive list. Listing of any trade names does not imply endorsement of the product.




Listed pesticide uses are non-exhaustive and largely based on historical use in North Dakota. This information is not to be used in place of advice from a licensed pesticide vendor. Use restrictions are subject to change.






Data from the United States Environmental Protection Agency, United States Geological Survey, North Dakota Department of Agriculture, and the National Library of Medicine PubChem database.


1-Naphthol		<i>Trade Names:</i> See Carbaryl	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
<i>Applied to:</i>			
<i>Notes:</i> Metabolite of carbaryl			





2,4,5-T		<i>Trade Names:</i> Agent Orange	
Type: 	Use: 	HAL: 70 µg/L PAL: 17.5 µg/L	Controls: 
<i>Applied to:</i> Historically applied to select crops			
<i>Notes:</i> Banned because of high toxicity			





2,4,5-TP		Trade Names: Silvex, Fenoprop	
Type: 	Use: 	MCL: 50 µg/L PAL: 12.5 µg/L	Controls:  
Applied to: Historically applied to select crops and pastureland			
Notes: Banned because of high toxicity			





2,4-D		Trade Names: 2,4-D, Curtail	
Type: 	Use: 	MCL: 70 µg/L PAL: 17.5 µg/L	Controls: 
Applied to: Lawns, pasture, corn, soybeans, wheat, vegetables, other crops			
Notes:			


3,5 Dichlorobenzoic Acid		Trade Names:	
Type:  	Use: 	MCL/HAL: NE PAL: NE	Controls:  
Applied to: Crops			
Notes: Not registered in North Dakota; metabolite of propyzamide			


3-Hydroxycarbofuran		Trade Names: See Carbofuran	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Metabolite of carbofuran			




Acifluorfen		Trade Names: Blazer, Storm	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls:  
Applied to: Soybeans, vegetable and fruit crops			
Notes:			




Alachlor		Trade Names: Bronco, Bullet, Crop Star, Intro, Lasso, Lariat, Micro-Tech	
Type: 	Use: 	MCL: 2 µg/L PAL: 0.5 µg/L	Controls:  
Applied to: Historically used on corn, soybeans, wheat, fruit and vegetable crops			
Notes: No longer used in the United States			




Aldicarb		Trade Names: Temik	
Type: 	Use: 	MCL: 3 µg/L PAL: 0.75 µg/L	Controls:  
Applied to: Vegetable crops, other crops			
Notes: Not registered in North Dakota			


Aldicarb-Sulfone		Trade Names: See Aldicarb	
Type: 	Use:	MCL: 2 µg/L PAL: 0.5 µg/L	Controls:
Applied to:			
Notes: Metabolite of aldicarb			


Aldicarb-Sulfoxide		Trade Names: See Aldicarb	
Type: 	Use:	MCL: 4 µg/L PAL: 1 µg/L	Controls:
Applied to:			
Notes: Metabolite of aldicarb			


Aldrin		Trade Names:	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Historically applied to soil and seeds for select crops including corn			
Notes: Banned because of high toxicity; breaks down into dieldrin			




Atrazine		Trade Names: Aatrex, Bicep II, Breakfree NXT, Cinch ATZ, Confidence XTRA, Harness XTRA, Tremor ATZ, Triangle	
Type: 	Use: 	MCL: 3 µg/L PAL: 0.75 µg/L	Controls: 
Applied to: Applied pre-or-post emergence to corn, wheat, vegetable and fruit crops, canola, pasture, other crops			
Notes:			




Bentazon		Trade Names: Basagran, Rezult B, Storm	
Type: 	Use: 	HAL: 200 µg/L PAL: 50 µg/L	Controls: 
Applied to: Soybeans, vegetables			
Notes:			




BHC (Alpha)		Trade Names: Alpha-HCH (See Lindane)	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Biprodukt of lindane production and often contained in commercial lindane			




BHC (Beta)		Trade Names: Beta-HCH (See Lindane)	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Biprodukt of lindane production and often contained in commercial lindane			




BHC (Delta)		Trade Names: Delta-HCH (See Lindane)	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Biproduct of lindane production and often contained in commercial lindane			




Bromoxynil		Trade Names: Buctril, Brox, Bison, Bromac, Huskie, Maestro, Moxy, Starane	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Corn, wheat, other crops			
Notes:			





Carbaryl		Trade Names: Sevin	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Corn, wheat, soybeans, vegetable and fruit crops, alfalfa, pasture, lawn and garden			
Notes:			





Carbofuran		Trade Names: Furadan, Curaterr	
Type: 	Use: 	MCL: 40 µg/L PAL: 10 µg/L	Controls: 
Applied to: Historically applied to corn, wheat, vegetable crops, other crops			
Notes: Not registered in North Dakota and heavily restricted throughout the United States			


Chlordane (alpha)		Trade Names: Octachlor and Velsicol	
Type: 	Use: 	MCL: 2 µg/L PAL: 0.5 µg/L	Controls: 
Applied to: Historically applied to food crops, lawns, gardens			
Notes: Banned because of high toxicity			




Chlordane (gamma)		Trade Names: Octachlor and Velsicol	
Type: 	Use: 	MCL: 2 µg/L PAL: 0.5 µg/L	Controls: 
Applied to: Historically applied to food crops, lawns, gardens			
Notes: Banned because of high toxicity			




Chlorothalonil		Trade Names: Bravo, Echo, Daconil	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Corn, wheat, soybeans, vegetable and fruit crops, lawn and turf			
Notes:			




Chlorpyrifos		Trade Names: Cobalt, Dursban, Govern, Lorsban, Pilot, Warhawk	
Type: 	Use: 	HAL: 2 µg/L PAL: 0.5 µg/L	Controls:  
Applied to: Corn, soybeans, wheat, vegetable and fruit crops, alfalfa, other crops			
Notes:			




DDD		Trade Names:	
Type:  	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Historically applied to select crops			
Notes: Banned because of high toxicity; metabolite of DDT			




DDE		Trade Names: See DDT	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Degradation product of DDT			




DDT		Trade Names: Anofex, Cezarex, Chlorophenothane, Dicophane, Dinocide, Gesarol, Guesapon, Guesarol, Gyron, Ixodex, Neocid, Neocidol, Zerdane	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Historically heavily used in agriculture			
Notes: Banned because of high toxicity			




Diazinon		Trade Names: Diazinon	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Corn, vegetable and fruit crops, nuts. Also used on cattle ear tags for insect control.			
Notes:			




Dicamba		Trade Names: Banvel, Clarity, Diablo, Oracle, Rifle, Sterling Blue, Vanquish, Vision	
Type: 	Use: 	MCL: 4000 µg/L PAL: 1000 µg/L	Controls: 
Applied to: Turf, pasture, corn, soybeans, wheat, other crops			
Notes:			




Dichlorprop		Trade Names:	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Cereal crops, pasture			
Notes: Not registered in North Dakota			


Diclofop-methyl		Trade Names:	
Type: 	Use: 	MCL/HAL: NE	Controls: 
		PAL: NE	
Applied to: Turf, wheat, barley			
Notes: Not registered in North Dakota, restricted use in the United States			




Dieldrin		Trade Names:	
Type: 	Use: 	MCL/HAL: NE	Controls: 
		PAL: NE	
Applied to: Historically applied to fruits, soils, seeds			
Notes: Banned because of high toxicity; related to aldrin			


Dinoseb		Trade Names:	
Type: 	Use: 	MCL: 7 µg/L	Controls: 
		PAL: 1.75 µg/L	
Applied to: Historically applied to soybeans and vegetable crops			
Notes: Banned because of high toxicity			


Endosulfan I		Trade Names: Benzoepin, Endocel, Parysulfan, Phaser, Thiodan, Thionex	
Type: 	Use: 	MCL/HAL: NE	Controls: 
		PAL: NE	
Applied to: Historically applied to vegetable and fruit crops			
Notes: Banned because of high toxicity			




Endosulfan II		Trade Names: Benzoepin, Endocel, Parysulfan, Phaser, Thiodan, Thionex	
Type: 	Use: 	MCL/HAL: NE	Controls: 
		PAL: NE	
Applied to: Historically applied to vegetable and fruit crops			
Notes: Banned because of high toxicity			




Endosulfan Sulfate		Trade Names: See Endosulfan I	
Type: 	Use:	MCL/HAL: NE	Controls:
		PAL: NE	
Applied to:			
Notes: Metabolite of Endosulfan			




Endrin		Trade Names: Endrin	
Type: 	Use: 	MCL: 2 µg/L	Controls: 
		PAL: 0.5 µg/L	
Applied to: Historically applied to fruit, cereal, or grain crops			
Notes: Banned because of high toxicity			


Endrin Aldehyde		Trade Names: See Endrin	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Degradation product of endrin			




Endrin Ketone		Trade Names: See Endrin	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Degradation product of endrin			




Ethalfuralin		Trade Names: Sonalan	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Applied pre-emergence to soybeans, vegetable and fruit crops, sunflowers, other crops			
Notes:			




Fenvalerate		Trade Names: Asana XL, Fenvalostar, Zyrate	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Corn, soybeans, wheat, vegetable and fruit crops, other crops			
Notes:			





Heptachlor		Trade Names: Heptagran, Baskalor, Drinox, Soleptax, Termide, Velsicol	
Type: 	Use: 	MCL: 0.4 µg/L PAL: 0.1 µg/L	Controls: 
Applied to: Historically applied to corn as seed or soil treatment			
Notes: Banned for agricultural use because of high toxicity			





Heptachlor Epoxide		Trade Names: See Heptachlor	
Type: 	Use:	MCL: 0.2 µg/L PAL: 0.05 µg/L	Controls:
Applied to:			
Notes: Metabolite of heptachlor			




Lindane		Trade Names: Gamallin	
Type: 	Use: 	MCL: 0.2 µg/L PAL: 0.05 µg/L	Controls: 
Applied to: Historically applied to seeds and food crops			
Notes: Banned because of high toxicity			





Malathion		Trade Names: Fyfanon, Malathion	
Type: 	Use: 	HAL: 500 µg/L PAL: 125 µg/L	Controls: 
Applied to: Corn, wheat, soybeans, vegetable and fruit crops, alfalfa, pasture, city mosquito control sprays			
Notes:			





MCPA		Trade Names: MCPA, Chiptox, Rhonox, Spurge Power	
Type: 	Use: 	HAL: 30 µg/L PAL: 7.5 µg/L	Controls: 
Applied to: Wheat, pasture			
Notes:			





Methiocarb		Trade Names: Mesurol	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls:  
Applied to: Fruit and vegetable crops			
Notes:			





Methomyl		Trade Names: Lannate, Nudrin	
Type: 	Use: 	HAL: 200 µg/L PAL: 50 µg/L	Controls:  
Applied to: Corn, soybeans, vegetable and fruit crops, alfalfa, other crops, yards			
Notes:			




Methoxychlor		Trade Names:	
Type: 	Use: 	MCL: 40 µg/L PAL: 10 µg/L	Controls: 
Applied to: Crops, livestock			
Notes: Banned because of high toxicity			





Metolachlor		Trade Names: Acuron, Bicep II, Brawl, Cinch ATZ, Dual II Magnum, Matador, Prefix, Sequence	
Type: 	Use: 	HAL: 700 µg/L PAL: 175 µg/L	Controls:  
Applied to: Applied pre-emergence to: corn, soybeans, vegetable and fruit crops, other crops			
Notes:			








Metribuzin		Trade Names: Axiom, Authority, Boundary, Matador, Rancor, Sencor, Tricor	
Type: 	Use: 	HAL: 70 µg/L PAL: 17.5 µg/L	Controls:  
Applied to: Applied pre-or-post emergence to: corn, wheat, soybeans, fruit and vegetable crops, alfalfa, other crops			
Notes:			





Oxamyl		Trade Names: Return, Vydate, Vy-King	
Type: 	Use: 	MCL: 200 µg/L PAL: 50 µg/L	Controls:  
Applied to: Vegetable and fruit crops, other crops			
Notes:			




Parathion Ethyl		Trade Names: Parathion	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls:  
Applied to: Vegetable and fruit crops, cotton, wheat, nuts			
Notes: Heavily restricted in the United States; not registered in North Dakota			




Parathion Methyl		Trade Names:	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Historically used on cotton, wheat			
Notes: No longer used in the United States			




Pendimethalin		Trade Names: Acumen, Freehand, Prowl, Pendimax, Pendulum, Stealth	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls:  
Applied to: Applied pre-or-post emergence to: corn, wheat, soybeans, fruit and vegetable crops, other crops			
Notes:			




Pentachlorophenol (PCP)		Trade Names:	
Type:   	Use: 	MCL: 1 µg/L PAL: 0.25 µg/L	Controls:   
Applied to: Commonly used as a wood preservative. Used as a herbicide, fungicide, and insecticide.			
Notes: Highly restricted use			


Picloram		Trade Names: Tordon	
Type: 	Use: 	MCL: 500 µg/L PAL: 125 µg/L	Controls:  
Applied to: Road ditches and other rights-of-way, pasture			
Notes:			




Propiconazole		Trade Names: Banner, Goliath XP, Propimax, Radar, Stratego, Tilt	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Corn, wheat, soybeans, vegetable and fruit crops, other crops, turf			
Notes:			




Propoxur (Baygon)		Trade Names: Baygon	
Type: 	Use: 	HAL: 3 µg/L PAL: 0.75 µg/L	Controls: 
Applied to: Primarily for indoor and yard use; some vegetable and fruit crops			
Notes:			

Simazine		Trade Names: Princep, Simazine	
Type: 	Use: 	MCL: 4 µg/L PAL: 1 µg/L	Controls: 
Applied to: Applied pre-or-post-emergence to: corn, vegetable and fruit crops, alfalfa, pasture, turfgrass, other crops			
Notes:			

Toxaphene		Trade Names:	
Type: 	Use: 	MCL: 3 µg/L PAL: 0.75 µg/L	Controls: 
Applied to: Historically applied to primarily cotton, also to corn, small grains, vegetables, soybeans, livestock			
Notes: Banned because of high toxicity			

Trans-Nonachlor		Trade Names: See Chlordane (alpha) or (gamma)	
Type: 	Use:	MCL/HAL: NE PAL: NE	Controls:
Applied to:			
Notes: Component of chlordane			

Triallate		Trade Names: Avadex, Buckle, Far-Go	
Type: 	Use: 	MCL/HAL: NE PAL: NE	Controls: 
Applied to: Barley, lentils, peas, triticale, wheat, and canary grass			
Notes:			

Trifluralin		Trade Names: Buckle, Treflan, Trust	
Type: 	Use: 	HAL: 10 µg/L PAL: 2.5 µg/L	Controls: 
Applied to: Applied pre-emergence to: corn, wheat, soybeans, vegetable and fruit crops, alfalfa, pasture, other crops			
Notes:			