

PROTECTING YOUR GROUNDWATER THROUGH FARMSTEAD ASSESSMENT

AE-1077



Assessing Your Farm Chemical Storage and Handling Practices

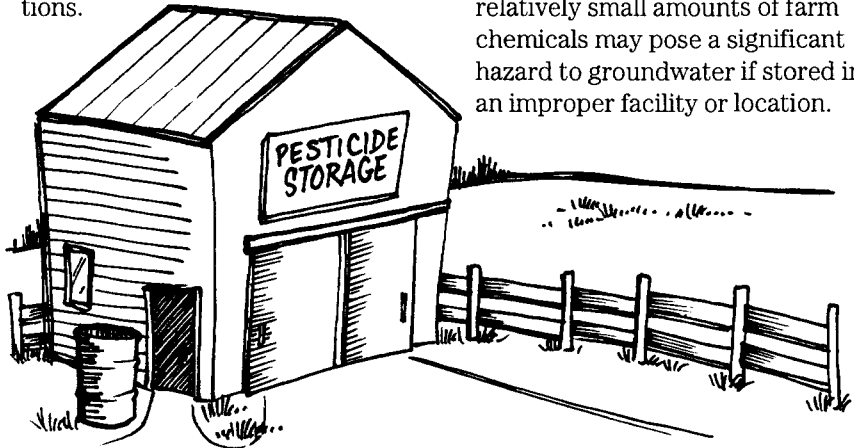
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Farm chemicals such as pesticides and fertilizers play a vital role in agriculture. Over the years they have dramatically increased farm production. Farm chemicals, however, must be stored and handled safely to protect both people and the environment. Two major areas of concern related to farm chemical management are: (1) storage practices and (2) mixing, loading, and disposal practices.

This circular contains a brief discussion of each question on the Farmstead Assessment checklist, and a section discussing what you can do and who to call if you answer "Yes" to any of the questions.

1 Do you store pesticides on your farm?

There is no law regulating the amount of pesticides that can be stored on your farmstead. Before you make a decision about storing pesticides, you need to balance cost, expected use, and risks associated with storing pesticides. The risk associated with stored pesticides is related to leaks or inadequately protected storage sites. Large amounts of stored pesticides may pose little danger to groundwater contamination if the storage site is properly designed with secondary containment for protection in case of accidental spills. On the other hand, relatively small amounts of farm chemicals may pose a significant hazard to groundwater if stored in an improper facility or location.



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2 Do you store fertilizer on your farm?

The use of fertilizer, especially nitrogen, has increased tremendously since 1960 and has led to an increase in agricultural production. Nitrogen in the nitrate form is extremely soluble in soil. Nitrate-nitrogen levels exceeding 10 ppm in drinking water are a health hazard. Care needs to be taken when storing nitrogen fertilizer (dry, liquid, or gas) because in the nitrate form it is extremely mobile and will quickly move from sites of spillage into groundwater resources.

3 Do you store pesticides with high leaching potential or are you unsure of the leaching potential of the chemicals stored on your farmstead?

You should know the leaching potential of all chemicals stored on your farmstead. Leaching potential is defined as a chemical's tendency to move through the soil. Pesticides with high leaching potential are more likely to travel through the soil and into the groundwater than pesticides with low leaching potential. To help you determine whether the pesticides that are stored on your farmstead have high, intermediate, or low leaching potential, a list of pesticides with their common name, brand name, and their potential for leaching is included in Appendix I.

4 Are chemicals stored on a permeable surface such as wood, gravel, or dirt or on an impermeable surface with no curb?

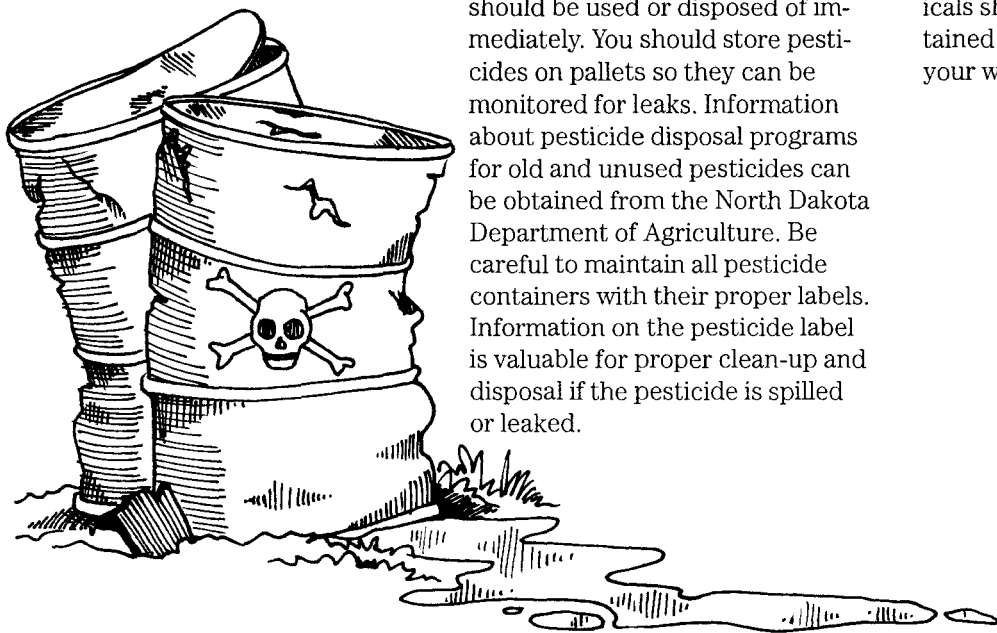
Containment is very important in the event of an accidental spill. The floor of the storage site should be made of sealed concrete or other easily cleaned, non-permeable material. Carpeting, wood, soil, and other absorbent floors are difficult or impossible to decontaminate in case of a leak or spill. For ease of clean-up, shelving and pallets should be made of non-absorbent materials such as plastic or metal. If wood or fiberboard materials are used, they should be coated or covered with plastic, polyurethane or epoxy paint.

5 Do you have pesticide containers that are rusting, have been patched, or have holes or tears?

A primary concern about the condition of pesticide containers is the potential for leaks or spills. If you have containers that are rusting or have holes or tears, the pesticide should be used or disposed of immediately. You should store pesticides on pallets so they can be monitored for leaks. Information about pesticide disposal programs for old and unused pesticides can be obtained from the North Dakota Department of Agriculture. Be careful to maintain all pesticide containers with their proper labels. Information on the pesticide label is valuable for proper clean-up and disposal if the pesticide is spilled or leaked.

6 Do you use or store farm chemicals near a well?

The closer that chemicals are regularly handled near a well, the greater the chance for a spill and well contamination. Contamination is more likely to occur if the well is shallow and located on a coarse-textured soil. Farm chemicals should be stored in a contained area and as far away from your well as possible.

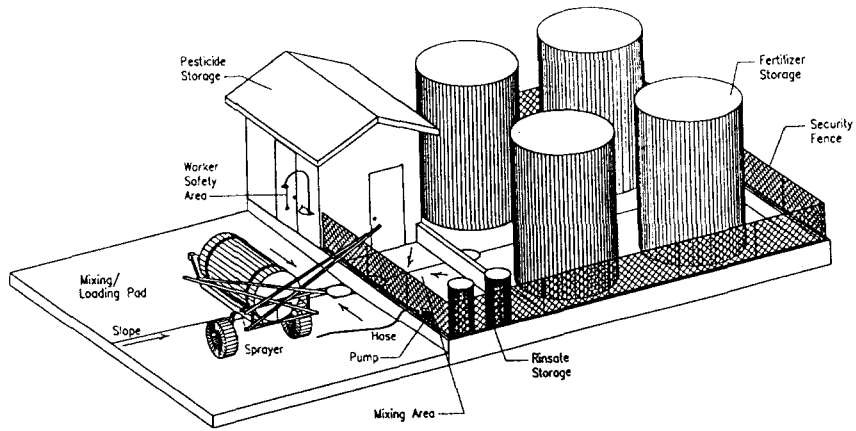


7 Are farm chemicals stored in an area exposed to activities that could damage containers or result in chemical spills?

Chemicals should be stored in an area where there is little traffic or activity. If possible, they should be stored in a separate building. If a variety of farm activities occur in the same area as your chemical storage, an alternate storage location is highly recommended. Heavy traffic in machine shops puts pesticide containers at high risk of being damaged.

! Are chemicals stored in a location that is unlocked and open to vandalism and children?

Storage of farm chemicals in a secure location is very important. Keeping out unauthorized people, especially children, is a critical function of the storage facility. Whether the storage facility is as small as a cabinet or as large as an entire building, keep it securely locked.



Medium sized pesticide storage containment and mixing/loading facility perspective. (Source: Midwest Plan Service, MWPS-37. Designing Facilities for Pesticide and Fertilizer Containment)

MIXING AND LOADING PRACTICES

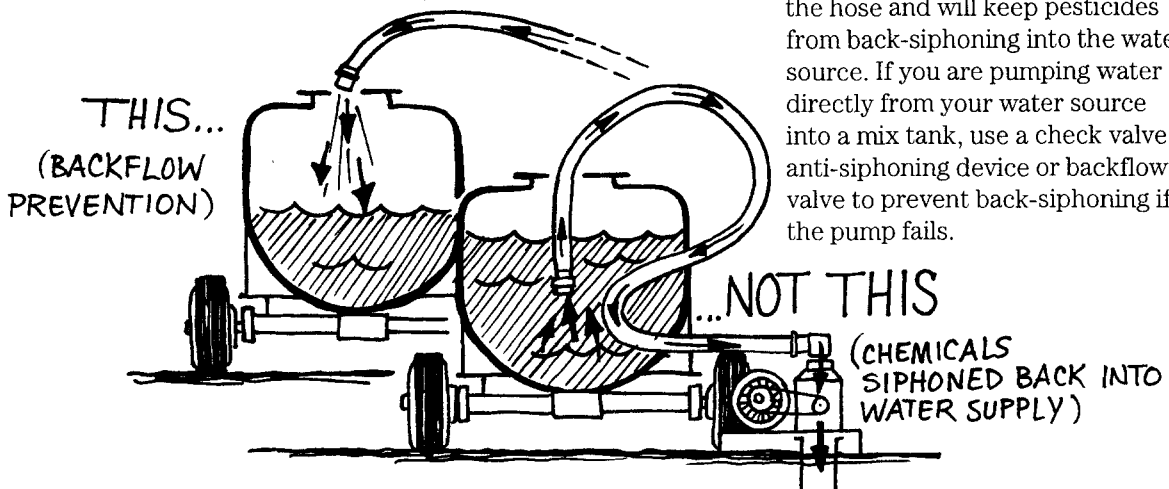
Mixing and loading are primary pesticide handling tasks. They are also among the most hazardous aspects of a handler's job. When you mix and load farm chemicals on the farmstead, you need to consider where you mix and load the chemicals as well as how you mix and load.

9 Do you fill your sprayer tank directly from your well?

Loading pesticides near or directly from your well is not a recommended practice. Your well has an increased chance of being contaminated if you fill your sprayer tank directly from it. Using a holding tank or nurse tank can be a good alternative to filling directly from your well when mixing and loading pesticides. This allows you to mix and load at a greater distance from your well. In the event of a spill, there is less chance of your water well becoming contaminated. Also, using a separate hydrant located away from your main water well (at least 150 feet) offers additional protection if a spill occurs. This does not offer any protection against back-siphoning.

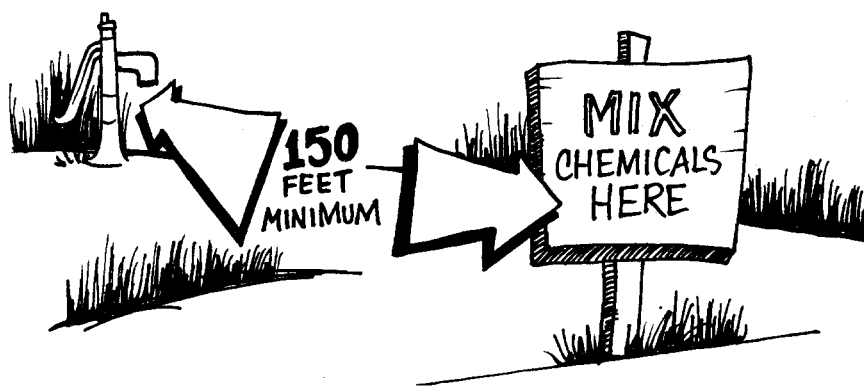
10 Do you fill your sprayer tank with a hose that does not have a check valve or put the hose in the tank so that it is below the water line during filling?

Protect your water source by keeping the water hose above the level of the pesticide mixture. This will prevent contamination of the hose and will keep pesticides from back-siphoning into the water source. If you are pumping water directly from your water source into a mix tank, use a check valve, anti-siphoning device or backflow valve to prevent back-siphoning if the pump fails.



11 Do you leave your sprayer tank unattended when filling?

You are responsible for the proper mixing and loading of all the pesticides you use. When a sprayer tank is left unattended, it increases the risk of contamination due to spillage. First, regular spillage of pesticides due to tank overflow allows pesticides to concentrate in the soil and increases their potential to move downward into the groundwater. Second, if the pump should stop while filling the tank, there is a risk of back-siphoning pesticides directly into the water source. Conscientious loading of pesticides will reduce the risk to groundwater.



12 Do you mix/load chemicals up-slope or less than 150 feet from your well?

If a spill occurs up-slope from a well, the natural flow will be toward the well. If a spill occurs down-slope, contamination can still occur. Although the surface water will flow away from the well, once the water and contaminant enter the soil they may be drawn toward the well as it is pumped. Always keep distance from your well when mixing and loading pesticides. A rule of thumb is to stay at least 150 feet away from your well.

13 Do you mix/load chemicals in an area which does not have a concrete pad with a curb to contain spills?

Although pads are not required in North Dakota, they are recommended when applicators are mixing and loading chemicals. You should avoid mixing or loading pesticides in areas where a spill, leak or overflow could allow pesticides to get into water resources. If a spill does occur, having a dike, curb or other barrier will help divert the flow of spilled chemicals to holding tanks where they can be properly disposed of without risk to the groundwater.

14 Do you wash your sprayer tank out on the farmstead and dump the rinsate less than 150 feet from your well?

When rinsing your sprayer tank, spread the rinsate over cropland or an area that needs a pesticide application. This way, the chemical does not go unused. If rinsate is regularly dumped near your well, eventually levels of pesticide may become great enough to put your well water at risk. A clean water tank or nurse tank on the sprayer is a convenient way to have clean water in the field to wash out your sprayer.

A ASSESSING FARM CHEMICAL STORAGE AND HANDLING PRACTICES

If you answered

“Yes” to the

following questions.

	What to do	Who to call	Other references
Questions 1 and 2.	Assess type and quantity to be stored. Do you really need to store?	Local county Extension office or North Dakota Dept. of Agriculture for information about pesticide retirement program.	Storage, Handling and Disposal of Pesticides and Containers. NDSU Extension Service. Circular AE-977.
Question 3.	Know leaching potential of all chemicals stored.	Local county Extension office.	Persistence and Mobility of Pesticides in Soil and Water. NDSU Extension Service. Bulletin 49.
Question 4.	Get designs for a non-permeable structure with a barrier.	Local county Extension office.	Storage, Handling and Disposal of Pesticides and Containers. NDSU Extension Service. Circular AE-977. Midwest Plan Service. Designing Facilities for Pesticide and Fertilizer Containment. MWPS-37.
Question 5.	Get rid of these chemicals through a pesticide retirement program, or use them immediately.	North Dakota Dept. of Agriculture or local county Extension office.	Applying Pesticides Correctly: A Guide for Private and Commercial Applicators. Brochure on the retirement program “Project Safe Send”, available from North Dakota Dept. of Agriculture or county Extension office.
Question 6.	Move your storage location away from your well.	Local county Extension office for storage facility plans.	Midwest Plan Service. Designing Facilities for Pesticide and Fertilizer Containment. MWPS-37.
Question 7.	Move your storage location to a less active area.	Local county Extension office for storage facility plans.	Midwest Plan Service. Designing Facilities for Pesticide and Fertilizer Containment. MWPS-37.
Question 8.	Place locks on all areas that you store farm chemicals.		

A **ASSESSING FARM CHEMICAL STORAGE AND HANDLING PRACTICES** (cont.)

If you answered "Yes" to the following questions.	What to do	Who to call	Other references
Question 9.	Try not to fill directly from your well. Use a hydrant (located at least 150 feet from your well), or a water holding tank.		Managing Pesticides to Prevent Groundwater Contamination. NDSU Extension Service. Circular E-979.
Question 10.	Make sure your fill hose is not below the water tank level and has a backflow device.	Local chemical dealer for a backflow device.	Managing Pesticides to Prevent Groundwater Contamination. NDSU Extension Service. Circular E-979.
Question 11.	Never leave sprayer tank unattended.		
Question 12.	Mix/load chemicals downslope from your well (at least 150 feet).		Managing Pesticides to Prevent Groundwater Contamination. NDSU Extension Service. Circular E-979.
Question 13.	Mix/load chemicals on a concrete pad with a curb, if possible	Local county Extension office for loading pad plans.	Midwest Plan Service. Designing Facilities for Pesticide and Fertilizer Containment. MWPS-37.
Question 14.	Spread rinsate out in a cropped field.	Local county Extension office.	Applying Pesticides Correctly: A Guide for Private and Commercial Applicators. Available at your local Extension office.



APPENDIX I. Trade and Common Names of Pesticides and Their Leaching Potential

HERBICIDES

Trade Name	Common Name	*Leaching Potential	Trade Name	Common Name	*Leaching Potential
2,4-D Amine	2,4-D	H	Brush Rhap Low		
2,4-D Amine 4 pound	2,4-D	H	Volatile 4-D	2,4-D	H
2,4-D Ester	2,4-D	H	Buckle	Triallate + Trifluralin	I
2,4-D LV Ester	2,4-D	H	Buctril	Bromoxynil	L
2,4-D LV Ester 6	2,4-D	H	Bullet	Alachlor + Atrazine	I/H
2,4-D LV-4	2,4-D	H	Butyrac 175	2,4-DB	H
2,4-D LV-6	2,4-D	H	Butyrac 200	2,4-DB	H
2,4-DB	2,4-DB	H	Cannon	Alachlor + Trifluralin	I
2,4-DB 1.75	2,4-DB	H	Carbyne	Barban	nd
Aatrex 4L	Atrazine	H	Cheyenne	Fenoxaprop + MCPA + Thifensulfuron + Tribenuron	L/I/H/nd
Aatrex Nine-0	Atrazine	H			
Accent	Nicosulfuron	nd	Chiptox MCPA Sodium	MCPA	nd
Accord	Glyphosate	L	Class 40 A	2,4-D	H
Agasco 400	2,4-D	H	Class 80 A WSP	2,4-D	H
Agasco MXL Herbicide E	MCPA	I	Class MCPA	MCPA	H
Ally	Metsulfuron	H	Class MCPE	MCPA	I
Amber	Triasulfuron	nd	Class Trust	Trifluralin	I
Amiben	Chloramben	H	Classic	Chlorimuron	I
Amine 4 2,4-D Weed Killer	2,4-D	H	Cobra	Lactofen	L
Amitrol-T	Amitrole	H	Command	Clomazone	I
Antor	Diethatyl	I	Commence	Trifluralin + Clomazone	I
Arena	Alachlor	I	Confidence	Alachlor	I
Ascend	Bentazon	H	Cornbelt 2,4-D	2,4-D	H
Assert	Imazamethabenz	H	Cornbelt Atrazine 4L	Atrazine	H
Assure II	Quizalofop-P	I	Cornbelt Atrazine 90 DF	Atrazine	H
Atrazine	Atrazine	H	Cornbelt Hi-Pen	2,4-D	H
Atrazine 4L	Atrazine	H	Cornbelt LV-4	2,4-D	H
Atrazine 4L Herbicide	Atrazine	H	Cornbelt LV-6	2,4-D	H
Atrazine 90	Atrazine	H	Cornbelt Saddle	Alachlor	I
Atrazine 90 DF	Atrazine	H	Cornbelt Trifluralin	Trifluralin	I
Atrazine 90 WDG Herbicide	Atrazine	H	Crop Star GB	Alachlor	I
Avenge	Difenzoquat	L	Crossbow	Triclopyr + 2,4-D	I/H
Balan	Benefin	L	Curtail	Clopyralid + 2,4-D	nd/H
Banvel	Dicamba	H	Curtail M	Clopyralid + MCPA	nd/I
Banvel SGF	Dicamba	H	Cycle	Metolachlor + Cyanazine	I
Barrage	2,4-D	H	Cyclone	Paraquat	L
Basagran	Bentazon	H	Dacamine 4D	2,4-D	H
Beacon	Primisulfuron	nd	Dakota	Fenoxaprop + MCPA	H/I
Betamix	Desmedipham + Phermedipham	I	Depend	Bentazon	H
Betanex	Desmedipham	I	Diquat	Diquat	L
Bicep	Atrazine + Metolachlor	H/I	Diuron	Diuron	I
Bladex	Cyanazine	I	Diuron 80 WDG	Diuron	I
Blazer	Acifluorfen	I	DPD Ester Brush Killer	2,4-D	H
Bronate	Bromoxynil + MCPA	L/I	Dual	Metolachlor	I
Bronco	Alachlor + Glyphosate	H/L			

* L=low, I=intermediate, H=high, nd=no data

/=separation of different potentials for products containing multiple pesticides

Trade Name	Common Name	*Leaching Potential	Trade Name	Common Name	*Leaching Potential
Envert 171	2,4-D	H	Nortron	Ethofumesate	I
Eptam	EPTC	I	Option II	Fenoxaprop	L
Eradicane	EPTC	I	Pacer	Bentazon	H
Eradicane Extra	EPTC	I	Pardner	Alachlor	I
Evik	Ametryn	I	Pinnacle	Thifensulfuron	H
Express	Tribenuron	nd	Pledge	Bentazon	H
Extrazine II	Cyanazine + Atrazine	I/H	Poast	Sethoxydim	I
Fallow Master	Glyphosate + Dicamba	L/H	Princep	Simazine	I
Far-Go	Triallate	I	Propanil 4E	Propanil	I
Farmland Liquid			Propanil 60 DF	Propanil	I
Atrazine 4L	Atrazine	H	Protocol	Glyphosate	L
Formula 40	2,4-D	H	Prowl	Pendimethalin	I
Freedom	Alachlor + Trifluralin	I	Pursuit	Imazethapyr	H
Fusilade 2000	Fluazifop-P	L	Pyrazon	Pyramin	I
Fusion	Fluazifop-P + Fenoxaprop	L	Ramrod	Propachlor	H
Galaxy	Acifluorfen + Bentazon	I/H	Ranger	Glyphosate	L
Glean	Chlorsulfuron	H	Rascal	Glyphosate	L
Gramoxone Extra	Paraquat	L	Rattler	Glyphosate	L
Harmony Extra	Thifensulfuron + Tribenuron	H/nd	Rescue	Naptalam + 2,4-D	H
Herbicide 273	Endothall	H	Rhomene	MCPA	H
Hi-Dep	2,4-D	H	Rhonox	MCPA	I
Hoelon	Diclofop	L	Rodeo	Glyphosate	L
Honcho	Glyphosate	L	Ro-Neet	Cycloate	I
Judge	Alachlor	I	Roundup/RT	Glyphosate	L
Jury	Glyphosate	L	Ruler	Glyphosate	L
Karmex DF	Diuron	I	Salute	Trifluralin + Metribuzin	I/H
Kerb	Pronamide	I	Salvo Low Volatile		
Krenite	Fosamine	I	Weed Killer	2,4-D	H
Laddok	Bentazon + Atrazine	H	Savage	2,4-D	H
Landmaster BW	Glyphosate + 2,4-D	L/H	Scope	Bentazon	H
Lariat	Alachlor + Atrazine	I/H	SEE 2,4-D LV4	2,4-D	H
Lasso	Alachlor	I	Select	Clethodim	nd
Lasso II	Alachlor	I	Sencor	Metribuzin	H
Leader	Bentazon	H	Silhouette	Glyphosate	L
Lexone	Metribuzin	H	Simazine 4L	Simazine	I
Linex 4 L	Linuron	I	Simazine 80 W	Simazine	I
Linex 50 DF	Linuron	I	Simazine 90 DF	Simazine	I
Lorox	Linuron	I	Simazine 90 WDG	Simazine	I
Low Vol 4 Ester Weed Killer	2,4-D	H	Solution	2,4-D	H
Low Vol Ester 4	2,4-D	H	Sonalan	Enthalfuralin	I
Low vol Ester 6	2,4-D	H	Sostrum Atrazine	Atrazine	H
Marksman	Dicamba + Atrazine	H	Stall	Alachlor	I
MCP 2 Sodium Herbicide	MCPA	nd	Stall MT	Alachlor	I
MCP Amine 4	MCPA	H	Stampede CM	Propanil + MCPA	I
MCPA 4 Ester Herbicide	MCPA	I	Starfire	Paraquat	L
MCPA Amine Herbicide	MCPA	H	Stinger	Clopyralid	H
MCPA LV Ester	MCPA	I	Sulv	2,4-D	H
Micro Tech	Alachlor	I	Sutan +	Butylate	I
Mirage	Glyphosate	L	Sutazine +	Butylate + Atrazine	I/H

* L=low, I=intermediate, H=high, nd=no data

/=separation of different potentials for products containing multiple pesticides

INSECTICIDES

Trade Name	Common Name	*Leaching Potential
Tiller	Fenoxaprop + 2,4-D + MCPA	L/H/I
Tordon	Picloram	H
Treflan 5	Trifluralin	I
Treflan 80 DC	Trifluralin	I
Treflan EC	Trifluralin	I
Treflan M.T.F.	Trifluralin	I
Treflan TR-10	Trifluralin	I
Tri-4	Trifluralin	I
Trific 60 DF	Trifluralin	I
Trifluralin 10G	Trifluralin	I
Trifluralin 4 AT	Trifluralin	I
Trifluralin 4 EC	Trifluralin	I
Trilin 10 G	Trifluralin	I
Trilin 4 AT	Trifluralin	I
Turbo	Metribuzin + Metolachlor	H/I
Weed Pro 3# Amine	2,4-D	H
Weed Pro 4# Low Vol	2,4-D	H
Weed Pro 6# Low Vol	2,4-D	H
Weed Pro Atrazine	Atrazine	H
Weed Rhap A-4D	2,4-D	H
Weed Rhap LV-6D	2,4-D	H
Weedar 64	2,4-D	H
Weedar Sodium MCPA	MCPA	nd
Weedestroy	MCPA	I
Weedone 170	2,4-D	H
Weedone LV 4	2,4-D	H
Weedone LV 6	2,4-D	H

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Trade Name	Common Name	*Leaching Potential
Ambush	Permethrin	L
Asana XL	Esfenvalerate	I
Counter	Terbufos	I
Cygon	Dimethoate	H
Diazinon	Diazinon	I
Dipel	Bacillus thuringiensis	nd
Di-Syston	Disulfoton	I
Dyfonate	Fonofos	I
Force	Tefluthrin	nd
Furadan	Carbofuran	H
Guthion	Azinphos-methyl	I
Lannate	Methomyl	H
Lorsban	Chlorpyrifos	I
Malathion	Malathion	L
Methyl parathion	Methyl parathion	L
Mocap	Ethoprop	H
Monitor	Methamidophos	H
NOLO (TM) Bait	Nosema locustae fungus	nd
Orthene	Acephate	H
Parathion	Ethyl parathion	L
Penncap M	Encapsulated methyl parathion	L
Phosphamidon	Phosphamidon	H
Pounce	Permethrin	L
Pydrin	Fenvalerate	I
Reldan	Chlopyrifos-methyl	I
Scout X-TRA	Tralomethrin	L
Sevin	Carbaryl	I
Supracide	Methidathion	I
Temik	Aldicarb	H
Thimet	Phorate	I
Thiodan	Endosulfan	L
Vydate	Oxamyl	H

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FUNGICIDES

Trade Name	Common Name	*Leaching Potential
Basicop	Copper	nd
Bayleton	Triademefon	I
Benlate	Benlate	nd
Blite Out Plus	Maneb + Triphenyltin hydroxide	I/L
Bravo	Chlorothalonil	I
Champ	Copper	nd
Champion	Copper	nd
Dithane	Mancozeb	I
Du-Ter	Triphenyltin hydroxide	L
Kocide	Copper	nd
Kocide 404S	Copper + Sulfur hydroxide	nd
Maneb Plus Zinc F4	Maneb + Zinc	I/nd
Manex II	Mancozeb	I
Manzate	Mancozeb	I
Mertect	Thiabendazole	I
Microthiol	Sulfur	nd
Penncozeb	Mancozeb	I
Pro-Tex	Maneb + Triphenyltin hydroxide	I/L
Ridomil	Metalaxyl	H
Ridomil MZ58	Metalaxyl + Mancozeb	H/L
Ridomil/Bravo	Metalaxyl + Chlorothalonil	H/I
Rovral	Iprodione	I
Sulfur DF	Sulfur	nd
Super Six	Sulfur	nd
Super Tin	Triphenyltin hydroxide	L
That Flowable	Sulfur	nd
Thiolux	Sulfur	nd
Tilt	Propiconazole	I
Top Cop Tribasi	Copper	nd
Top Cop W	Sulfur + Copper	nd
Topsin	Thiophanate methyl	I
Uniflow	Sulfur	nd

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SEED TREATMENT

Trade Name	Common Name	*Leaching Potential
Agri Strep	Streptomycin	nd
Agrosol	Captan + Thiabendazole	I
Agrosol Pour-On	Thiram + Thiabendazole	I
Agrosol T	Thiram + Thiabendazole	I
Agrox 2-Way	Captan + Diazinon	I
Apron	Metalaxyl	H
Apron-Terraclor	Metalaxyl + PCNB	H/L
AS-50	Streptomycin	nd
Baytan	Triadimenol	nd
Bean Guard	Captan + Carboxin	I
Benlate	Benomyl	I
Captan	Captan	I
Chloroneb	Chloroneb	I
DB Green	Maneb + Lindane	I
DB Green + Vitavax	Carboxin + Maneb + Lindane	I
Diazinon	Diazinon	I
Dithane	Mancozeb	I
Double R	Imazalil	nd
Dustret A	Maneb + Streptomycin	I/nd
Dustret T	Thiophanate methyl	I
Enhance Plus	Carboxin + Maneb + Lindane	I
Fir Bark	Zineb	nd
Flo-Pro IMZ	Imazalil	nd
Formaldehyde	Formaldehyde	nd
Gammasan	Captan + Lindane	I
Germate Plus	Carboxin + Diazinon + Lindane	I
Grain Guard	Mancozeb	I
Granol NM	Maneb + Lindane	I
Granox Plus	Maneb + Thiabendazole	I
Gustafson 42S	Thiram	I
Isotox Seed Treater F	Captan + Lindane	I
Lindane	Lindane	I
Lorsban 30	Chlorpyrifos	I
Lorsban 50-SL	Chlorpyrifos	I
Mancozeb	Mancozeb	I
Maneb	Maneb	I
Maneb + Lindane	Maneb + Lindane	I
Maneb-Lindane	Maneb + Lindane	I
Manex II	Mancozeb	I
Nu-Gro Captan	Captan	I
Nu-Gro Captan Carboxin	Captan + Carboxin	I
Nu-Gro Soybean Seed		
Protect	Captan	I
Nuzone	Imazalil	nd
Omega	Prochloraz	I
Polyram	Metiram	L
PST Plus Bark	Mancozeb	I
Rival	Captan + PCNB + Thiabendazole	I/L/I
RTU-PCNB	PCNB	L

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Trade Name	Common Name	*Leaching Potential
RTU-Vitavax-Thiram	Carboxin + Thiram	I
Seed Mate Captan Vitavax	Captan + Carboxin	I
Seed Mate Maneb Lindane	Maneb + Lindane	I
Sim-Tec Plus	Thiabendazole	I
Spud Bark	Mancozeb	I
Terra Coat	PCNB	I
Tops 2.5D	Thiophanate methyl	I
Triple Noctin	Thiram	I
Vitavax	Carboxin	I
Vitavax 200	Carboxin + Thiram	I
Vitavax Pour-On	Carboxin + Thiram	I
VTL	Carboxin + Thiram + Lindane	I
Yield Shield	Thiram	I

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 /=separation of different potentials for products containing multiple pesticides.



Helping You Put Knowledge To Work



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