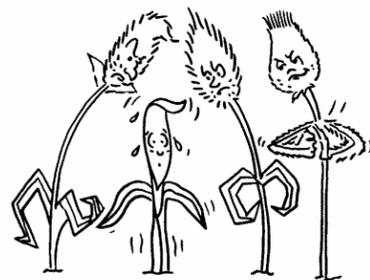




**Canada Thistle** needs to be sprayed with herbicide. A landowner would have effective control if the plant was sprayed at this stage. Tilling and breaking up the roots will just spread the thistle throughout the field.



Lincoln County  
Noxious Weed Control Board

405 Ross Street  
P.O. Box 241  
Davenport, Wash. 99122-0241

Phone: 509-725-3646  
Fax: 509-725-1332  
Email: [weedboard@co.lincoln.wa.us](mailto:weedboard@co.lincoln.wa.us)  
[www.co.lincoln.wa.us/weedboard](http://www.co.lincoln.wa.us/weedboard)

**Notify the Weed Board of your plan for control. Leave a message 24-hours a day at 509-725-3646.**

## Herbicide Recommendations

**For Noxious Weed Control**

**Call 509-725-3646 if you have questions.**



### **Before spraying herbicides, check out:**

- **What herbicides are recommended?**
- **When should I spray?**
- **Should I be using an MSO surfactant?**
- **What chemicals work best on each weed?**
- **What other control options are there?**
- **Are there other cautions I should be aware of?**

This publication is meant for general reference. Consult actual herbicide labels and LCNWCB-Options for Control brochure series for specific control recommendations.

Always remember to read and follow all label instructions on the herbicides you use.

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## **NOTES**

Always remember to read and follow all label instructions on the herbicides you use.

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## NOTES

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### Some Services Provided by the Weed Board

- Landowners are responsible for controlling noxious weeds on their property, per **RCW 17.10**.
- The Weed Board provides **technical assistance**, including numerous brochures and pamphlets, to assist landowners in controlling their noxious weeds.
- Weed Board staff will meet with landowners on their property for **“weed walks”** to identify plants and problem weeds, and to recommend options and solutions.
- The Weed Board will provide landowners with **GPS points on maps** to indicate the location of noxious weeds on their property, if needed.
- At a landowner’s request, provide **maps and assistance to commercial sprayers** to facilitate weed control on a landowner’s property. This is especially beneficial to **absentee landowners** who own vacation property in the county.
- The Weed Board will loan out a **4-gallon backpack sprayer** to landowners *at no charge*. We do require a **\$100 deposit** (check only) that is fully refundable when the sprayer is returned in the same condition.
- The Weed Board conducts an **annual pesticide re-certification** each fall. The seminar offers **re-certification credits** for those already licensed.
- Licensed applicators may use a **Weed Board computer** to earn **on-line pesticide license credits** from **Washington State University**. Call ahead for an appointment.



**solo**

Always remember to read and follow all label instructions on the herbicides you use.

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## Getting a Pesticide Applicator's License

### What are the advantages?

- A **licensed applicator** can purchase larger quantities of herbicides.
- A **licensed applicator** can purchase and use **“Restricted-Use” Pesticides**.
- Some of the active ingredients found in **“Restricted-Use” Pesticides** include **Atrazine, Diuron, Picloram and Simazine**.
- There are **450 Restricted-Use Pesticides** in the state of **Washington**.
- **“Restricted-Use Pesticides”** are herbicides judged by the **EPA** and the state of **Washington Department of Agriculture** to be **hazardous** to humans and non-targeted species. Due to the safety threat, **licensed applicators** must maintain **precise recordkeeping** on their use, including date, calibration, temperature, wind conditions, targeted weeds, and amount used.
- **Hazards to humans** are evaluated based on whether a pesticide exceeds established levels for acute or dermal toxicity, inhalation concentration, eye and skin corrosiveness, and whether the pesticide causes significant chronic or delayed-toxic effects.



### How to get a Pesticide Applicator's License

- Contact the **Dept. of Agriculture** at **222 N. Havana Street, Spokane Valley (509-533-2690)** for an application.
- **Pay** the fees, **study** the materials and **pass** the examination.
- Any **federal Restricted-Use Pesticide** is **automatically restricted** in the state of **Washington**.

### Are there effective pesticides available if I don't have an Applicator's License?

- There are **lots of herbicides available** to landowners for effective control of noxious weeds. See our recommendations.

Always remember to read and follow all label instructions on the herbicides you use.

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## Other Publications Available Free of Charge--Cont.

- **Biological Control of:**
  - **Canada Thistle**
  - **Common mullein**
  - **Dalmatian Toadflax**
  - **Houndstongue**
  - **Knapweed**
  - **Poison Hemlock**
  - **Rush Skeletonweed**
  - **Russian Thistle**

Visit our Website for additional educational materials

[WWW.CO.LINCOLN.WA.US/WEEDBOARD](http://WWW.CO.LINCOLN.WA.US/WEEDBOARD)

Always remember to read and follow all label instructions on the herbicides you use.

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## Other Publications Available Free of Charge

( Available in hardcopy and/or from our website)

- Services We Provide
- Herbicide Recommendations
- Full Circle Noxious Weed Control
- Noxious Weeds of Lincoln County
- Biocontrol of Noxious Weeds in Lincoln County
- Lincoln County Noxious Weed List
- Herbicide Facts
- Noxious Weeds For Home Buyers
- No Tolerance Noxious Weeds
- Options for Control of:
  - Phragmites (Common Reed)
  - Kochia
  - Myrtle Spurge
  - Rush Skeletonweed
  - Puncturevine
  - Japanese Knotweed
  - Yellow Flag Iris
  - Western water hemlock
  - Whitetop/Hoary Cress
  - Russian Knapweed
  - Sulfur Cinquefoil
  - Eurasian Watermilfoil
  - Perennial Pepperweed

Notify the Weed Board of your plan for control. Leave a message 24-hours a day at 509-725-3646.

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## Herbicides — Their Chemical Names

### Size is limited for the general public.

Most of the products listed below are **Restricted-Use Pesticides** in sizes larger than **one-gallon**. However, most are available in smaller containers.

### 2,4-D

**2,4-D** is a **broadleaf herbicide** that will last in the soil **2-4 weeks** after spraying. Nearly all of its effect is on the foliage. This product is sold under many names and formulations such as **Amine4®**, **Hi-Dep®** and **Weedar®**.

### Dicamba

This is the active ingredient in **Banvel®**. It is a **broadleaf herbicide** that can last **2-4 months** in the soil. Most of its activity is through the weed's foliage, but there is some residual control of new seedling weeds.

### Dicamba + 2,4-D

This combination is recommended for most landowners with noxious weeds in a pasture or lawn. Some of the more common trade names include **Weedmaster®**, **Brush Buster®** and **Vengeance®**.

### Picloram

**Tordon®** is the trade name for this **Restricted-Use Pesticide**. It is very long-lasting. This broadleaf herbicide will control nearly all broadleaf plants for **2-3 years**. **Picloram** has foliar activity, as well as some soil and root activity.

### Glyphosate

Most commonly known as **Roundup®**, this active ingredient can be found in many herbicides. **Glyphosate** only works on foliage. It has no soil activity. **Glyphosate** kills **all** plants, leaving bare ground for new weeds to get established, unless you plan to re-seed after spraying. *Use caution* when using **Glyphosate!**

### Clopyralid

This chemical is commonly sold as **Transline®**. Although not labeled for turf, it is a great broadleaf herbicide for pastures and non-crop settings. **Transline®** is recommended when weeds are growing among conifer trees.

If you add **2,4-D**, it is called **Curtail®**.

If you add **Triclopyr**, it is **Redeem®** or **Confront®**.



Always remember to read and follow all label instructions on the herbicides you use.

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## More Chemical Names...

### Chlorsulfuron

A selective broadleaf herbicide for use in non-crop settings. It is commonly known as **Telar®**. Go to page 15 to find how to purchase this herbicide locally.

### Metsulfuron

Commonly known as **Escort®**, this selective-broadleaf herbicide is used for weed and brush control in pastures, rangeland and non-crop areas.

### Imazapic

Commonly known as **Plateau®**, this selective herbicide is good for controlling broadleaf weeds and some grasses.

### Norflurazon

Commonly known as **Predict®**, this selective herbicide is applied **pre-emergence** for the control of grasses and some broadleaf weeds.



Notify the Weed Board of your plan for control. Leave a message 24-hours a day at 509-725-3646.

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## Where Do You Purchase Telar and Milestone?

Pulling **Dalmatian Toadflax** or **Rush Skeletonweed** from the ground is not an effective means of control since the plant roots grow very deep.

For both weeds, it is essential to use an **MSO-type surfactant** or sticker, like **Hasten®, Syltac or Dynamic** so the herbicide can get inside the plant for an effective kill.

For **Rush Skeletonweed**, it is important to spray **early** before the leaves at the base of the plant dry up and stop absorbing herbicide. Look for leaves that look like crabgrass or dandelion. The leaves will have **coarse white hair** with a **red vein** in the middle of the leaf.

The most effective herbicide for these **weeds** is either **Telar** and/or **Milestone**, chemicals normally available to **licensed applicators** only are now **available to any landowner**.

Refer to the **Backpack Sprayer Pamphlet** for recipes of success.

A **two-ounce** container of **Telar** or **1 quart** of **Milestone** are available at the following locations:

- **AG LINK** on **Highway 2** in **Reardan**. Call **John Merkel** at **509-796-3301**. The **2-oz. container** of **granular Telar** costs about **\$58**, and is enough for **several acres** of solid weeds. Call them first since they need to break the chemical down from bulk containers.
- **Wilbur-Ellis** at **12001 E. Empire Way** in **Spokane Valley**. The business is north of the intersection of **North Pines Road** and **Trent**. Go north on **Pines** from **I-90**. Call **Tim** at **509-928-4512** since they too need to break the **Telar** down from bulk containers. To save a trip, they will ship or mail the herbicide to you if you pay with a **credit card**.
- **FOR MILESTONE ONLY**—**Western Farm Service** at **1315 12th Street** in **Davenport** call **725-3241** or in **Reardan** located on **Hwy 231** call **796-2601**. Takes **1-2 days** to get product to the branches **once your order is placed**.

Always remember to read and follow all label instructions on the herbicides you use.

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## What Should You Do After Spray-

- **Reseed the area with perennial grasses**, especially if there are no other grasses or vegetation left to compete with new weeds.
- Fertilize remaining grasses to increase their competitive edge over weeds.
- **Do not overgraze.** That will only allow more weeds to come in and take over.
- Always follow up a few weeks after spraying to check for missed areas or re-growth.

**Always over-seed an area disturbed by herbicides.**

## Are Herbicides Poisonous?

- Most **herbicides** are considered **low** or **moderately** toxic. All chemicals have a **half-life** in the environment.
- **“Half-life”** is defined as **the amount of time it takes to biodegrade one-half of the original amount.** Herbicides are broken down by sunlight and microbial activity in the soil.
- All chemicals are assigned **Lethal Dose (LD-50) numerical values** through certain testing procedures. An **LD-50** is the dose or amount of pesticide that can kill **50 percent** of the test animals when eaten or absorbed through the skin. **LD-50** is expressed in **milligrams** of chemical **per kilogram of body weight** of the test animal (**mg/kg**).
- The **lower** the **LD-50**, the **more acutely toxic** the chemical.

Chemical Name	LD-50	Half-Life
Gasoline	19	---
Caffeine	19	---
2,4-D	300 to 1,000	7 to 28 days
Aspirin	1240	---
Banvel	1700	5 months
Table Salt	3320	---
Telar/Glean	5545	3 months
Roundup	5600	7.5 days
Tordon	8200	5 months/pint

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## Pendimethalin

Commonly known as **Pendulum®**, this selective pre-plant, pre-emergence, and early post-emergence herbicide is used to control annual broadleaf and grass weeds such as **Puncturevine**.

## Aminopyralid

A selective broadleaf herbicide for use in non-crop settings. It is commonly known as **Milestone®**. **Go to page 15** to find out how to purchase this herbicide locally. It is not a restricted use herbicide, so you don't need a license to purchase. This herbicide has systemic plus residual activity that makes it equally effective at multiple growth stages. Preliminary research indicates suppression activity on Cheatgrass.

If you add **2,4-D**, it is called **Forefront**.

## Calibrations, Conversions and Measurements

### Quarts/Acre to Ounces/Gallon

1/2 qt./Acre =	1/4 oz./gal.
1 qt./Acre =	1/2 oz./gal.
2 qt./Acre =	1 oz./gal.
3 qt./Acre =	1-1/2 oz./gal.
1 pint/Acre =	1/4 oz./gal.
2 pints/Acre =	1/2 oz./gal.

### Capacity Measure Liquid

- 1 pint = 2 cups
- 1 fluid ounce = 2 tablespoons
- 1 cup = 8 fluid ounces
- 1 tablespoon = 3 teaspoons

### Backpack Calibrations (Per one gallon of water)

• 2,-4D	2 ounces	• Curtail	1 ounce
• Hi-Dep	2 ounces	• Redeem	1 ounce
• Weedmaster	1 ounce	• Tordon	1/2 ounce
• Roundup	2 ounces	• Milestone	2 milliliters

### Good Pointers

- If you are applying herbicides and are **soaking** the plants, your rate of application is approximately
- **100 gallons per acre.** If you are just **wetting** the plants, your rate of application is approximately
- **50 gallons per acre.**
- The goal is to be applying at the **50-gallon per acre** rate whenever spraying.

Always remember to read and follow all label instructions on the herbicides you use.

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Notify the Weed Board of your plan for control. Leave a message 24-hours a day at 509-725-3646.

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### Herbicide Recommendations: A-C

Weed	Growth Type	April-June	July	August-Nov
		Rosette/ Seedling	Bolting, Bud & Bloom <b>NOT MATURE PLANTS</b>	Flowering, Seed, Regrowth
Absinth Wormwood	Perennial	Telar Weedmaster Milestone 2,4-D	Telar Weedmaster Milestone 2,4-D	Telar Weedmaster Milestone 2,4-D
Annual Bugloss (Use a Surfactant)	Annual	2,4-D Weedmaster Redeem Milestone+ 2,4-D	2,4-D Weedmaster Redeem Milestone + 2,4-D	2,4-D Weedmaster Redeem Milestone + 2,4-D
Baby's Breath	Perennial	Dicamba Tordon + 2,4-D Weedmaster Milestone	Dicamba Tordon + 2,4-D Weedmaster	Dicamba Tordon + 2,4-D Weedmaster Milestone
Bull Thistle	Biennial	Weedmaster Curtail Tordon Milestone Redeem Cimarron Max	Weedmaster Curtail Tordon Milestone Redeem Cimarron Max	Weedmaster Curtail Tordon Milestone Redeem Cimarron Max
Butterfly Bush	Perennial	Glyphosate	Glyphosate	Glyphosate
Canada Thistle	Perennial	Weedmaster Curtail Tordon Redeem Cimarron Max Milestone	Weedmaster Tordon + 2,4-D Telar Cimarron Max Milestone	Tordon + 2,4-D Cimarron Max <b>Fall Regrowth:</b> Telar Banvel/Clarity Milestone Milestone

### Herbicide Recommendations: S-Y

Weed	Growth Type	April-June	July	August-Nov
		Rosette/ Seedling	Bolting, Bud & Bloom <b>NOT MATURE PLANTS</b>	Flowering, Seed, Regrowth
Sulfur Cinquefoil	Perennial	Tordon + 2,4-D Telar Milestone	Tordon + 2,4-D Telar Milestone	Tordon + 2,4-D Telar Milestone
Whitetop (Hoary Cress)	Perennial	Weedmaster Tordon + 2,4-D Telar Milestone ?	Weedmaster Tordon + 2,4-D Telar Milestone ?	Weedmaster Tordon + 2,4-D Telar Milestone ?
Yellow Flag Iris	Perennial	Aquamaster Habitat	Aquamaster Habitat	Aquamaster Habitat
Yellow Starthistle	Perennial	2,4-D Redeem Tordon Telar Milestone Cimarron Max Curtail	2,4-D Redeem Tordon Telar Milestone Cimarron Max Curtail	2,4-D Redeem Tordon Telar Milestone Cimarron Max Curtail

Always remember to read and follow all label instructions on the herbicides you use.

### Herbicide Recommendations: P-S

Weed	Growth Type	April-June	July	August-Nov
		Rosette/ Seedling	Bolting, Bud & Bloom	Flowering, Seed, Regrowth
			NOT MATURE PLANTS	
Puncturevine	Perennial	Predict Pendulum Weedmaster Telar	Predict Pendulum Weedmaster Telar	Predict Pendulum Weedmaster Telar
Rush Skeletonweed	Perennial	2,4-D Weedmaster Redeem Telar Milestone Tordon	2,4-D Weedmaster Redeem Telar Milestone Tordon	2,4-D Weedmaster Redeem Telar Milestone Tordon
Scotch Thistle	Biennial	2,4-D Weedmaster Telar Cimarron Max Milestone Tordon	2,4-D Weedmaster Telar Cimarron Max Milestone Tordon	2,4-D Weedmaster Telar Cimarron Max Milestone Tordon
St. Johnswort (Goatweed)	Perennial	Weedmaster Tordon + 2,4-D Milestone Telar Cimarron Max	Weedmaster Tordon + 2,4-D Milestone Telar Cimarron Max	Weedmaster Tordon + 2,4-D Milestone Telar Cimarron Max

Notify the Weed Board of your plan for control. Leave a message 24-hours a day at 509-725-3646.

### Herbicide Recommendations: C-F

Weed	Growth Type	April-June	July	August-Nov
		Rosette/ Seedling	Bolting, Bud & Bloom	Flowering, Seed, Regrowth
			NOT MATURE PLANTS	
Cereal Rye	Annual	Achieve 40 DG Discover Osprey Axial Everest	Achieve 40 DG Discover Osprey Axial Everest	Achieve 40 DG Discover Osprey Axial Everest
Common Bugloss (Use a Surfactant)	Biennial/ Perennial	2,4-D Weedmaster Redeem Milestone + 2,4-D	<u>3-Way Mix</u> Escort/Telar, 2,4-D & Dicamba  Tordon + 2,4-D Milestone + 2,4-D	Tordon + 2,4-D  <u>Regrowth:</u> 2,4-D Weedmaster 3-Way Mix Milestone + 2,4-D
Common Tansy	Perennial	2,4-D Weedmaster Escort Telar Cimarron Max Milestone	2,4-D Weedmaster Tordon Telar Cimarron Max Milestone	2,4-D Weedmaster Tordon Telar Cimarron Max Milestone
Dalmatian Toadflax	Perennial	Tordon + 2,4-D Telar Escort	Tordon + 2,4-D Telar Escort	Telar Escort
Field Bindweed (Morning Glory)	Perennial	2,4-D Weedmaster Tordon + 2,4-D Tordon Cimarron Max	2,4-D Weedmaster Tordon + 2,4-D Tordon Cimarron Max	Tordon + 2,4-D Tordon Cimarron Max

Always remember to read and follow all label instructions on the herbicides you use.

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### Herbicide Recommendations: H-L

Weed	Growth Type	April-June	July	August-Nov
		Rosette/ Seedling	Bolting, Bud & Bloom	Flowering, Seed, Regrowth
		NOT MATURE PLANTS		
Houndstongue (Use a Surfactant)	Biennial	2,4-D Tordon + 2,4-D Telar Cimarron Max	2,4-D Tordon + 2,4-D Telar Cimarron Max	Tordon + 2,4-D Escort Telar Cimarron Max
Japanese Knotweed	Perennial	Aquamaster Habitat Arsenal	Aquamaster Habitat Arsenal	Aquamaster Habitat Arsenal
Knapweeds	Biennial\ Perennial	2,4-D Weedmaster Curtail Redeem Cimarron Max Milestone Tordon	2,4-D Weedmaster Curtail Redeem Cimarron Max Milestone Tordon	2,4-D Weedmaster Curtail Redeem Cimarron Max Milestone Tordon
Kochia (Use a Surfactant)	Annual	Vista + 2,4-D Weedmaster Cimarron Max	Vista + 2,4-D Weedmaster Cimarron Max	Vista + 2,4-D Weedmaster Cimarron Max
Leafy Spurge	Perennial	Overdrive + Tordon 2,4-D Weedmaster Telar Cimarron Max Redeem Tordon	Overdrive + Tordon 2,4-D Weedmaster Telar Cimarron Max Redeem Tordon	Tordon + 2,4-D Telar

Notify the Weed Board of your plan for control. Leave a message 24-hours a day at 509-725-3646.

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### Herbicide Recommendations: M-P

Weed	Growth Type	April-June	July	August-Nov
		Rosette/ Seedling	Bolting, Bud & Bloom	Flowering, Seed, Regrowth
		NOT MATURE PLANTS		
Musk Thistle	Biennial	2,4-D Telar Curtail Milestone Redeem Cimarron Max	2,4-D Telar Curtail Milestone Redeem Cimarron Max	2,4-D Telar Curtail Milestone Redeem Cimarron Max
Myrtle Spurge	Perennial	2,4-D Weedmaster Tordon Telar	2,4-D Weedmaster Tordon Telar	2,4-D Weedmaster Tordon Telar
Perennial Pepperweed	Perennial	Tordon + 2,4-D Telar Cimarron Max	Tordon + 2,4-D Telar Cimarron Max	Tordon + 2,4-D Telar Cimarron Max
Phragmites (Common Reed)	Perennial	Habitat Aquamaster	Habitat Aquamaster	Habitat Aquamaster
Poison Hemlock	Biennial\ Perennial	2,4-D Weedmaster Milestone	2,4-D Weedmaster Milestone	2,4-D Weedmaster Milestone