



WEEDS

THE BASICS

WEEDS

Simply.....Any plant growing in a place you don'tWant it!

WEEDS

- Weeds are not the cause of an unhealthy lawn, they are the result.
- If you determine the cause of your weeds, you can reduce weed problems of the future.
- Some causes include; Compaction, Dryness, Scalping (exposure of the soil) and Poor Fertilizing (resulting in a lack of vigor in the turf).
- A healthy lawn will “choke out” most weeds, and keep them out until some condition allows them to establish.

TWO TYPES OF WEEDS

- Grass Type
 - These weeds look like a grass.
- Broadleaf
 - Basically, everything else.
 - These may have round leaves, serrated leaves, large or small leaves.
 - The plant may be viney, a rosette, or woody, tall or short.
 - It does NOT look like a grass.

GRASS TYPE WEEDS

- Is the grass type weed **green**, first thing in the spring?
 - If so, it is probably a native grass, or a perennial type of grass, that needs to be controlled with a non-selective control, such as Killzall or Round-up.

Must Use Every Time!

Spreader Sticker

- Makes water wetter.
- Helps chemicals stick to the leaves.
- If it sticks, it works!
- Mix 2 TBS per Gallon

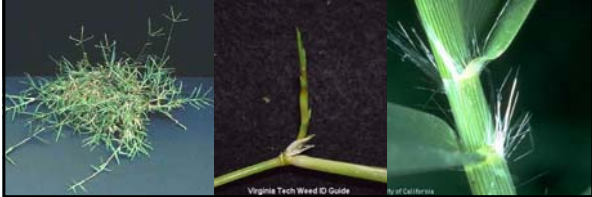
KILLZALL VS. ROUND-UP

	Killzall	41% Glyphosate	
	mix 2½ oz per Gallon	coverage: 6,400 sq. ft.	
	Suggested retail \$14.99	retail per oz. .47¢	
	Round-up	18% Glyphosate & .73% Diquat	
	mix 3 oz per Gallon	coverage: 3,600 sq. ft.	
	Suggested retail \$24.99	retail per oz. .78¢	
	Round-up Pro	50.2 % Glyphosate	
	mix 1½ oz per Gallon	coverage: 6,300 sq. ft.	
	Suggested retail \$49.99	retail per oz. \$1.42	

GRASS TYPE WEEDS

Does the grass green-up later in the season?

- If so, it is probably one of the native or perennial grasses that needs to be identified before control is administered.
- Questions to ask; Is it viney? Does it have a narrow blade? Can you bring in a sample?



GRASS TYPE WEEDS

For Bermudagrass control and suppression use Turflon Ester plus Spreader Sticker, or Bayer Bermudagrass Control for Lawns.



GRASS TYPE WEEDS

- Does the Grass come up from a seed every year? Not showing up until late June or July.
- Does it show up along the edges, and tends to grow in clumps?



GRASS TYPE WEEDS

- With this kind of weed, you have two choices to attempt control.
 - **Post-emergence or Pre-emergence.**
- Post-emergence is to control the weed, after it has emerged from a seed. "You can see it"
- Pre-emergence is to apply a control, before the weed germinates.
 - This is in the Spring for most weeds, but may be in the late Summer or Fall, for natives and some Broadleaf's.

GRASS TYPE WEEDS

Post-emergent Controls.



Spray when Hot!

Crabgrass Killer 2 applications, 5 to 7 days apart.

HOW DO PRE-EMERGENT'S WORK?

- Crabgrass Preventers do NOTHING to the Seed.
- They form a gaseous barrier in the top few inches of the soil, and when the seed germinates it absorbs the herbicide and it kills the weed.
- Seeds that are above the soil surface, such as a sandbur, may not be affected as much as seeds below the surface.

HOW DO PRE-EMERGENT'S WORK?

- Preventers only last for a certain amount of time, that's why timing is so important.
- Don't use plants as your timing. (Forsythia, Redbud, etc)
- Rule of thumb, three consecutive nights above 50° then apply. (edge of sidewalk)
- New Preventers throw timing out the window.
- Always water in, even if it says you don't have to.

GRASS TYPE WEEDS

Pre-emergent Controls in Turf

For All Seasons

water

Prevents grass type weeds for 6 to 8 months.
Contains: Proflaminate Barricade

Crabgrass Preventer with Team

Prevents grass type weeds for 6 to 8 weeks.
Contains: Trifluralin & Benefluralin Team

Scotts Super Turf Builder plus Halts

Prevents grass type weeds for 4 to 6 weeks.
Contains: Pendimethalin Prowl

GRASS TYPE WEEDS

Pre-emergent Controls in Turf

Professional

Weed-Out plus Crabgrass Preventer

Prevents grass type weeds for up to 3 to 4 months. Controls over 200 broadleaf weeds.

Contains: Dimension® and Trimec®

Hi-Yield Crabgrass Control

Prevents grass type weeds for up to 4 to 6 weeks.

Contains: Treflan and Balan

GRASS TYPE WEEDS

Pre-emergent Controls in Vegetable Gardens

Contains: 1.47% Trifluralin Treflan

This prevents weeds and grasses for up to 4 to 6 weeks.

Repeat Monthly Throughout the Season

These are
Exactly
The Same!

GRASS TYPE WEEDS

Pre-emergent Controls in Landscapes

- Preen Contains: Feeds and prevents for 4 to 6 weeks.
- Hi-Yield and Ferti-lome Contain: Dimension and prevents for 3 to 4 months. Start-n-Grow feeds for 3 to 4 mo.

DO NOT USE Dimension IN A VEGETABLE GARDEN!

GRASS TYPE WEEDS

Specialty Controls

- Over-the-Top
- Controls grass in desirable plants, like Shrubs and Perennials, such as; Daylilies, Sedums, Potentilla, Spirea, Evergreens and many more.

See label for a complete list!

H/Y Grass Killer with Poast

Can be used in a Vegetable Garden great for; Strawberries, Asparagus, etc.

Again, See the label for a complete list!

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BROADLEAF WEEDS

- We will go through some of the more common broadleaf weeds in a few minutes.
- First, broadleaf weeds come in various shapes and sizes.
- It helps to know a little bit about them in order to control them.
- I could make it easy and say, "spray them with two applications of *Weed-Free-Zone*, 10 to 14 days apart and if that doesn't kill them use *Kill-zall*". But, that's not what we're here for. That's the Mass Merchants way, and we want to be at least one step better than them.

BROADLEAF WEEDS

- It helps to know when a broadleaf weed germinates.
- **Winter Annuals** - germinate in the late Summer, or early Fall and only live one year.
 - Such as; Chickweed, Shepherds Purse and Henbit.
- **Summer Annuals** - germinate in the late Spring and through the Summer, and die with the first frost.
 - Such as; Spurge, Knotweed and Puncture vine.
- **Winter Perennials** - germinate in the late Summer, or early Fall and live for more than one year.
 - Such as; Dandelion and Clover.
- **Summer Perennials** - germinate in the Late Spring and Summer and live for more than one year.
 - Such as; Wild Violets, Ground Ivy and Plantain.

BROADLEAF WEEDS

- In order to control Broadleaf weeds, one has to consider how a weed lives and how the chemicals work on them.
- Weeds that germinate in the Summer can often be prevented with a preventer.
- Weeds that germinate in the Fall are less likely to be affected by a preventer, unless a second application of preventer is applied.
- This is not to imply that a preventer will work on all broadleaf weeds, because they won't.
- Always **water** a preventer in.

HOW WEED KILLERS WORK

- All weed killers work best if they are absorbed through a green leaf surface.
- Some weed killers; *Weed-Out*, and *Weed-Free-Zone*, can be absorbed through the stem, or the roots.
- So, when you apply a Weed-n-Feed, it must "stick" to the leaves in order to work.
- Weed killers work better on actively growing weeds. Weeds under stress, such as; drought, nutrient or weather, will not respond to chemicals as well as "Healthy" weeds.

WEED KILLERS CONT.

- Weeds have pores on their leaves, that allow them to exchange gases with the air (stuff flows in and out through these pores).
- These pores constrict (close) when it is hot and sunny, this helps the weed to avoid drying out during the day.
- Sometime at night these pores relax and the exchange with the air resumes.
- Knowing this we know that a chemical is more likely to be absorbed in the morning than in the afternoon when the pores are constricted and evaporation is at its highest.

WEED KILLERS CONT.

- Most Summer Annuals are easiest to kill when they are young.
- Most Winter Annuals are easiest to kill in the Fall, again when they are young. Before they go through a Winter.
- Most of the Perennial weeds are also easiest to control in the Fall.
- Another time when weeds are "more susceptible" or easier to kill is when they are in bloom or in the rosette stage, before they "bolt".

WEED KILLERS CONT.

Why is Fall such a good time to kill Weeds?

- In the Fall, next years crop of weed are young and growing aggressively.
- All plants are moving chemicals up and down in their system in the Fall so a small amount of herbicide can kill.
- Finally, if a weed absorbs the herbicide but it doesn't kill the weed, it will store the chemical in its roots until Spring. In the Spring when the weed comes out of dormancy, it will translocate the chemical up into the leaves and the weed being in a weakened state from the winter will die.

WEED KILLERS CONT.

Now lets look at a weed in the Spring.

- Inside the weed;
 1. The weed is coming out of dormancy, and the chemicals are moving upward.
 2. The weed is growing very aggressively, its Spring!
 3. Then you have a weed that is "Hardened Off" because it's made it through a Winter, it's "Tough!"
- Now you apply a chemical that (makes the weed grow faster, than its cell structure can handle).
- And lets add a fertilizer to all this! **This, is why weed killers fail, or are less effective in the Spring.**
When you can: Spray in the Spring, Weed-n-feed in the Fall.

WEED KILLERS CONT.

Final Note on herbicides!

- Herbicides work best; (In a perfect World)
 1. In the morning of a sunny day.
 2. With the temperature between 75° and 85°.
 3. NO rain or water, for 24 hours after application.
 4. NO mowing for 48 hours before or after application.
 5. Use the proper dilution rate.
- Weed-n-Feeds need to be applied on Wet Leaves, in order to "stick" to the leaf.
- When in doubt or if you can't meet all of these, use Weed-Free-Zone - 2 times - 10 to 14 days apart.

WEED-FREE-ZONE

This is your BEST weed killer!

- Contains 2,4-D, MCPP, Dicamba, and Carfentrazone.
- Will work from 40° to 90°. If you must spray when it is hotter, spray in the early morning, or late evening.
- Will show results in hours.
Fastest weed killer on the Market
- Rainfast in as little as 3 hours.
- Re-seed in 2 weeks.



WEED-OUT

- Contains 2,4-D, MCPP, and Dicamba =Trimec.
- Controls over 200 weeds.
- Works when it is too hot to use *Weed Free Zone*, from 60° to 90°.
- Reseed after 4 weeks.
- Apply to newly seeded areas after 3 mowings.



WEED-OUT PLUS

- Contains **2,4-D**, **MCP**P, and **Dicamba =Trimec**® Plus **MSMA Monosodium Methane**arsonate.
- **Don't Know What Kind of Weeds You Have?**
- Controls many broadleaf and grass type weeds.
- Reseed after 4 weeks.
- Apply to newly seeded areas after 4 mowings.



WEED FREE ZONE PLUS FERTILIZER

- Contains **2,4-D**, **MCP**P, **Dicamba**, and **Sulfentrazone**.
- Sulfentrazone is a cousin to Carfentrazone, only this releases from a granule.
- Works in cool weather, works fast, and controls many of the hard to kill weeds.
- The fertilizer is the same as GreenMaker with 5% Iron and 10% Sulphur. **18-4-6**



WEED-OUT VS. PLUS 2

- Weed-Out contains **2,4-D**, **MCP**P and **Dicamba**. This makes it a fully systemic weed killer, can be absorbed through the leaves, stems and roots.
- Super Plus Two contains only **2,4-D** and **MCP**P and is **NOT** Systemic, It **MUST** be absorbed through a **leaf surface**.
- Weed-Out lists over 200 weeds and contains Iron.
- Plus Two lists only 52 weeds, NO Iron.



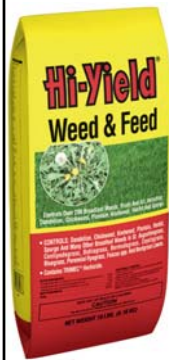
WEED-OUT WITHOUT FERTILIZER

- Contains **2,4-D**, **MCP**P and **Dicamba**.
- Contains **NO** Fertilizer.
- Controls over 200 weeds.
- Is effective from 70° to 90°.
- Apply when the grass is wet, No rain or water for 24 hours.



HI-YIELD WEED & FEED

- Contains **2,4-D**, **MCP**P and **Dicamba**.
- Contains only Quick Release Fertilizer.
- Contains NO Iron.
- Controls up to 200 weeds.
- This is a *Promotional* Weed & Feed.



What follows is 17 of the more common Weeds found in our; Yards, Gardens and Landscapes. I tried to pick pictures to help you in identifying them. At the end I have four of the hardest to control Weeds.



Black Medic

- Note Flower shape.
- Easy to control with *Weed-Free-Zone* or *Weed-Out*.

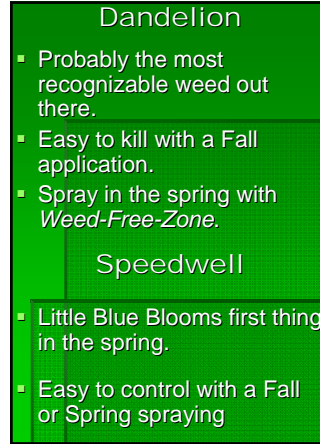


Chickweed

- This is an early spring bloomer.
- Germinates in the late Summer, early Fall.
- Fall applications are very effective on this weed.

Clover

- Clover is a harder to kill weed.
- Use *Weed-Free-Zone* and make this an easy to kill weed.

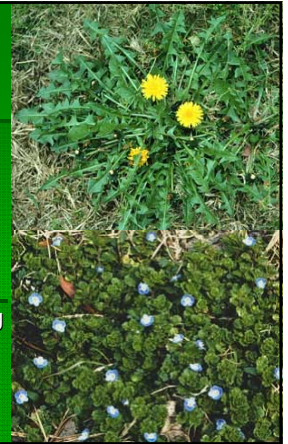


Dandelion

- Probably the most recognizable weed out there.
- Easy to kill with a Fall application.
- Spray in the spring with *Weed-Free-Zone*.

Speedwell

- Little Blue Blooms first thing in the spring.
- Easy to control with a Fall or Spring spraying

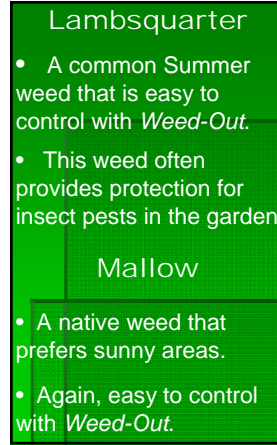


Henbit

- This is another weed that germinates in the late Summer and is very easy to control with a Fall application.

Knotweed

- A very common weed along sidewalks and driveways.
- Occurs in the Summer, and is easy to control with *Weed-Out*.



Lambsquarter

- A common Summer weed that is easy to control with *Weed-Out*.
- This weed often provides protection for insect pests in the garden

Mallow

- A native weed that prefers sunny areas.
- Again, easy to control with *Weed-Out*.

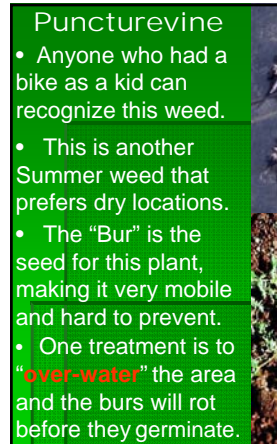


Purslane

- This is another common Summer weed.
- Some people plant it on purpose, for its hardiness and edible leaves.
- After pulled, the plant will produce seeds on the energy left in the stems.

Plantain

- This is a very common Summer weed. very easy to kill before they "Bolt".



Puncturevine

- Anyone who had a bike as a kid can recognize this weed.
- This is another Summer weed that prefers dry locations.
- The "Bur" is the seed for this plant, making it very mobile and hard to prevent.
- One treatment is to "over-water" the area and the burs will rot before they germinate.





Shepherd's purse


- This is another very common winter annual.
- Note the **“heart-shaped”** fruit or “purse”.
- This is very easy to control with *Weed-Free-Zone* in Fall or Spring.

Wood Sorrel



- This is one of the smaller but common weeds.
- This weed is a summer Perennial and often takes two applications due to size.

Spurge



- This is one of the easiest weeds to identify; oval leaves, with a pink stem, that oozes a white milky sap, when broken.
- This is one of the most common problematic weeds, and yet it is very easy to control and prevent.
- Prevent with a properly timed Crabgrass Preventer.
- Control with *Weed-Free-Zone* early, or *Weed-Out* in the Summer.

- The following three “Hard to Control” broadleaf weeds require tougher weed killers, Patience, Persistence and of course **Spreader Sticker**
- Turflon Ester contains 61.6% Triclopyr. Brush and Stump Killer contains 8.8% Triclopyr. Both of these control, hard to kill weeds without killing the grass.



Wild Violets



- One of the hardest weeds to get rid of.
- This weed has a little tuber under the ground and not all of them pop up at the same time.
- Persistence is a must, spray one or two applications, keep your eyes open, and spray again as needed. It may take 2 or 3 years to get them all.

Ground Ivy aka (Creeping Charlie)

- Another of the hard to control weeds.
- This weed spreads by rhizomes, seeds and cuttings.
- Timing is essential for the control of this invasive weed. Two or three sprayings 10 to 14 days apart in the Fall, or in the Spring when the weed is blooming.
Use *Weed-Free-Zone*.



Bindweed



- Note leaf shape and white flowers.
- Spreads by roots, seeds and everywhere the vine touches.
- Start by preventing seeds with *All Seasons*
- Spray with *Weed-Free-Zone* at 2 to 3 week intervals. Use *Brush & Stump* when hot out.



Yellow Nutsedge

- This is not a grass or a broadleaf weed.
- Once again, this is one of the hard to control weeds.
- It spreads by bulblets, rhizomes, roots and seeds.
- Do not pull this weed! **Always use spreader sticker!**
- Crabgrass killer takes two applications at a 5 to 7 day interval.
- Sedgehammer takes a single application

ferti-lome

WEEDS

THE END