

Laws and
Regulations
(LR)

The Golden Record



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The Label is the Law!



- ❧ Label must be present during an application
- ❧ Label covers:
 - ❧ Required PPE
 - ❧ Registered use sites
 - ❧ Target species
 - ❧ Rate of application
 - ❧ Environmental hazards
 - ❧ Tank mix compatibility

Application Records



- œ Contain all relevant information regarding the application
 - œ Date and time
 - œ Commercial applicators-one half hour accuracy
 - œ Location and site type
 - œ Rangeland, industrial, turf, etc.
 - œ Temperature, wind speed, and other factors
 - œ Target weed species
 - œ Herbicide used
 - œ Dilution rate (per acre rate of herbicide), herbicide specifics (EPA reg # and active ingredient), application rate (equipment output)
 - œ Endangered Species Protection Bulletin for county and month if required by label

Record Every Application!

- ☞ All applications should have an application record
 - ☞ Even if there were only a few weeds
 - ☞ Even if you barely started the job and adverse weather shut down operations
 - ☞ Even if it is on your own property!

From the Horse's Mouth



Per the Pesticide Applicator's Act

35-10-111. Record-keeping requirements (1). Each commercial, registered limited commercial, licensed private, and registered public applicator shall keep and maintain records of each pesticide application in the form and manner designated by the commissioner. The applicator shall retain the records for three years after the date of the pesticide application; except that the record retention period for private applicators is two years.

Application Records

Protect the Applicator

- œ Accurate records are a major CYA (cover your a**)
 - œ Show that the herbicide label was followed correctly
 - œ Rate, site type, etc
 - œ Prove when, where, and how you were applying herbicides
 - œ Physical location date and time (2233 County Road 382, on July 8th from 10-12pm)
- œ Show what you were applying
 - œ Herbicides vs insecticides, selective vs non-selective

Scenario 1



- ☞ Your neighbor Jill sees you applying a pesticide on your lawn. The next day she notices her grass is starting to die near your shared fence line.
- ☞ Without records, she could assume that this was the result of a sloppy application
- ☞ With records, you can show that you applied a broadleaf herbicide at the proper rate and the damage to her grass is caused by another factor

Scenario 2



- ❧ You are a commercial applicator who has been contracted to treat roadsides for a local HOA.
- ❧ After treating all roadsides and billing the HOA, your point of contact claims that the weeds have not yet died and you did not do the work agreed upon.
- ❧ Without a record, it will be difficult to prove you did any of the work.
- ❧ With a record you can show what days each road was worked on, and the chemical used and how long until visible damage will be evident on the weeds.

Anatomy of a record



Application Record

Date and Time:

Customer:

Phone Number:

Location of Application:

Weeds treated:

Growth Stage:

Seedling/Rosette Bolting Vegetative Budding/Bloom Fall Growth

Chemical Applied:

EPA Reg #:

Manufacturer Name:

Rate:

Chemical Applied:

EPA Reg #:

Manufacturer Name:

Rate:

Chemical Applied:

EPA Reg #:

Manufacturer Name:

Rate:

Carrier: Water

Acres Treated:

Gallons Applied:

Temperature:

Wind Speed:

Wind Direction:

Name of Applicator:

Hours:

Invoice/Work Order Number:

[Commercial Applicators are licensed by the Colorado Department of Agriculture](#)

Anatomy of a Record



Date and time is important to verify weather conditions

Customer is important for billing/if its your own property you can leave this off

Date and Time:
Customer:
Phone Number:
Location of Application:

Contact info for customer, important to have accessible on records for various reasons

Include both physical address, and location type-rangeland, industrial, etc-must match registered sites on label!

Anatomy of a Record



Growth stage is important when determining effectiveness of treatment-certain herbicides are more effective at different life stages

List all species treated

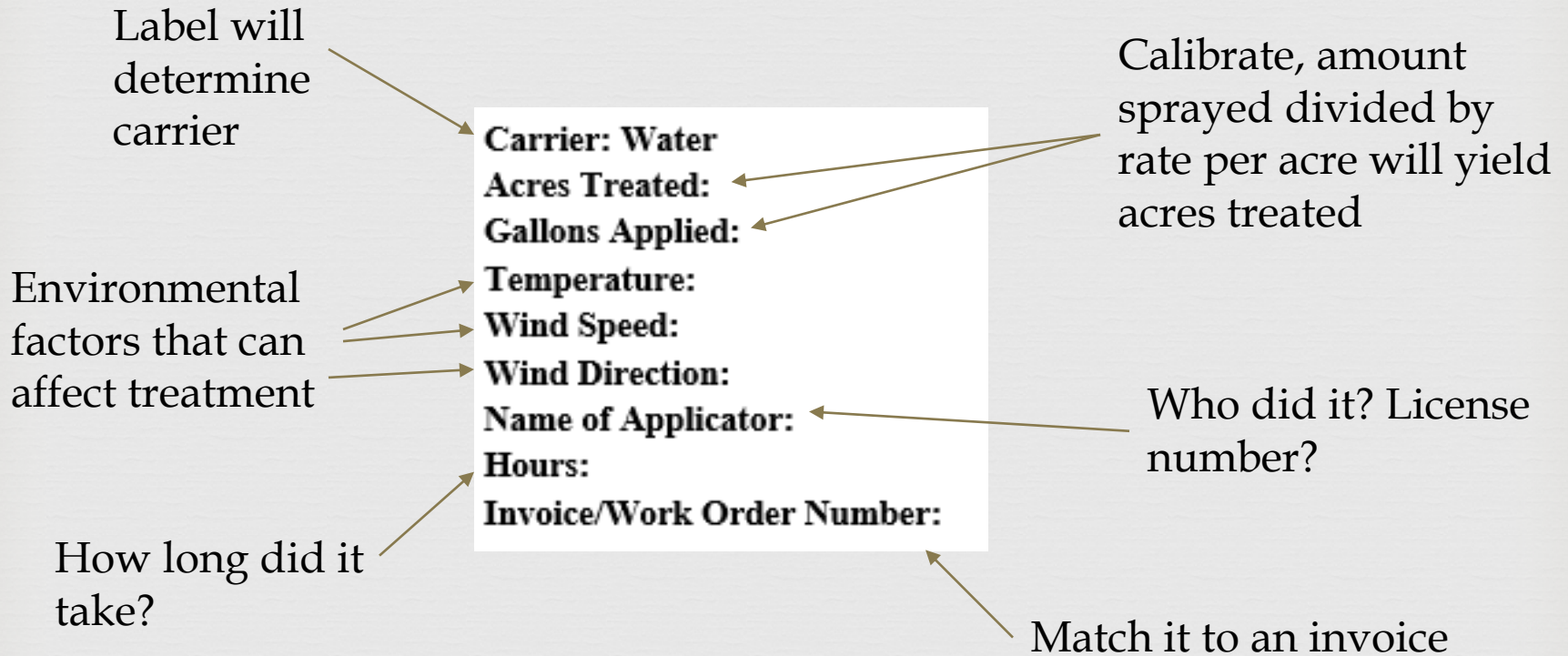
Weeds treated:					
Growth Stage:					
	Seedling/Rosette	Bolting	Vegetative	Budding/Bloom	Fall Growth
Chemical Applied:					
	EPA Reg #:				
	Manufacturer Name:				
	Rate:				

Chemical common name

Per acre rate, how much were you applying...can help determine effectiveness, use rate prescribed per weed on the label

Identifiers for specific brand and formulation-important for use...aquatic 24D vs non-aquatic, etc

Anatomy of a Record



Anatomy of a Record



Commercial Applicators are licensed by the Colorado Department of Agriculture

Required on all invoices for
herbicide/pesticide applications!

Licensed Technicians



- ❧ Include licensed technicians or supervisor's license number on application records
- ❧ Include type of license when necessary
 - ❧ Private applicators should include their license number on application records for restricted use pesticides
 - ❧ Commercial applicators should include their license number on all applications made for hire

Who needs which license?

☞ Commercial Applicator License:

- ☞ A person engaged in the business of applying pesticides must be licensed as a commercial applicator
- ☞ A person evaluating or recommending pest control does not need to be a commercial applicator if they are not engaged in the business of applying pesticides

Who needs which license?

Registered Limited Commercial and Public Applicator License

- Any person who is engaged in applying restricted use pesticides on property owned or leased by the person or the person's employer must be registered as a Limited Commercial Applicator
- Any agency, municipality, or local government entity, or political subdivision that applying restricted use pesticides shall register as a Public Applicator

Who needs which license?

Private Applicator License

Any person who used or supervises the use of a restricted use pesticide to produce an agricultural commodity on their own land, or if the pesticide is applied without compensation further than the exchange of services between two agricultural producers

Qualified Supervisors



- ☞ A person working for a person or agency that is or should be licensed as a commercial, limited commercial, or public applicator who with or without supervision engages in applying pesticides, recommends pesticides, sells application services, or supervises others in these functions should be licensed as a qualified supervisor

Certified Operators



- ⌘ A person who applies any restricted use pesticide without the on site supervision of a qualified supervisor must be licensed as a certified operator

Applying your Application Records

- ☞ Application records have many uses
 - ☞ Evaluate efficacy of treatments
 - ☞ Track changes in weed species dynamics
 - ☞ Link to mapping data
 - ☞ Monitor for resistance

Evaluating Efficacy of Treatments

- ☞ Easiest method is to compare acres treated between years
 - ☞ Does the amount increase, decrease, or is it static?
 - ☞ Compare with management goals: eradicate, contain, or suppress
 - ☞ If the acreage increases did equipment or method change?
 - ☞ Broadcast vs spot treat
 - ☞ Are you rotating MOAs on herbicide resistant species?

Track Changes in Weed Species Dynamics

- ❧ Fairly straight forward
- ❧ Are the same weed species present each year?
- ❧ Are there new weed species, if so did they come from adjacent properties?
 - ❧ Or did you not PlayCleanGo/WorkCleanGo and introduce a new invader to your own or a clients property?
- ❧ Is a weed species no longer present?
 - ❧ Is that void being filled by a different species now?

Link to Mapping Data



- ❧ Several ways to do this
 - ❧ Simply indicate whether or not the property was mapped
 - ❧ Indicate which points were mapped at this property/project
 - ❧ YT (yellow toadflax) points 1-6, MT (musk thistle) points 7-10, etc
 - ❧ Include pictures of the property in your mapping data and compare photo points of annual treatments

Monitor for resistance



- ❧ Make sure that you are rotating MOAs or using a tank mix
- ❧ Has the same mix been used for several consecutive years
- ❧ Are the treatments achieving the desired goal
- ❧ Are survivors manually removed post treatment to ensure that resistant genes are not being passed down
- ❧ Herbicide resistance should be closely monitored in species with known resistance, i.e. kochia
- ❧ Accurate records are key for resistance management!

Examples of Weeds and Timing Applications

☞ Timing of applications is extremely important for success

Weeds treated:

Growth Stage:

Seedling/Rosette

Bolting

Vegetative

Budding/Bloom

Fall Growth

Chemical Applied:

EPA Reg #:

Manufacturer Name:

Rate:

Spotted Knapweed



☞ Aminopyralid: Milestone

☞ Postemergent: rosette to bolting or fall regrowth

☞ Preemergent: prior to germination

☞ Clopyralid: Transline

☞ Postemergent: rapidly growing plants in spring or fall, may treat during bolting to bud stage

☞ Preemergent: prior to germination

Leafy Spurge



☞ 2,4-D: various names

☞ Postemergent: Spring at flowering and on fall growth

☞ Picloram: Tordon 22k

☞ Postemergent: in spring or early summer at true flower stage, or on fall regrowth

Musk Thistle



- ❧ 2,4-D: various names
 - ❧ Postemergent: apply to rosettes
- ❧ Aminopyralid: Milestone
 - ❧ Postemergent: late bolt to early flowering
 - ❧ Pre-emergent: in winter or early spring prior to germination/fall in cold winter climates

Yellow Toadflax



☞ 2,4-D: various names

☞ Postemergent: apply on rapidly growing plants

☞ Picloram: Tordon 22K

☞ Postemergent: apply on rapidly growing plants in the spring or post flower late summer through early fall

Kochia



- ❧ Dicamba: Banvel, Clarity
 - ❧ Postemergent: apply to seedlings and young plants
- ❧ Fluroxypr: Vista XRT
 - ❧ Postemergent: seedling to bloom stage
- ❧ Esplanade: Indaziflam
 - ❧ Pre-emergent: spring or fall offer best control

Hoary Cress



☞ 2,4-D: various names

☞ Postemergent: spring prior to flowering or fall growth

☞ Metsulfuron: Escort

☞ Postemergent: pre-bloom to bloom, or fall rosettes

Common Tansy



- ❧ Aminopryalid and Metsulfuron: Opensight
 - ❧ Postemergent: bud stage or later
- ❧ Glyphosate: various names
 - ❧ Postemergent: apply to rapidly growing plants prior to flowering

Salt Cedar



☞ Triclopyr: Garlon formulations

☞ Cut stump or basal bark treatments: year round applications with best timing being in late summer and fall

☞ Imazapyr: Arsenal, Habitat, Polaris

☞ Foliar or cut stump treatments: late summer or early fall

Other Forms of Recordkeeping to Consider

- ☞ Photo points of weed populations
- ☞ Mapping data
- ☞ Weed management plans
- ☞ Vehicle maintenance logs
- ☞ Pesticide purchases
- ☞ For landowners: when selling property you must declare any pesticides that have been used on the property and any environmental problems (noxious weeds)

Photo Points



- œ One of the easiest ways to visually show management efforts (or to show spread of unmanaged species)
 - œ Take photos annually prior to treatment
 - œ Save in a folder
 - œ Compare photos in chronological order
 - œ Take photos from the same angle each year, use a landmark for reference

Bad photo points



What makes these points bad? The ponderosa used for reference is taken from a different angle each year (2019-2021), you can still see the difference but it is not a direct comparison.

Better photo points

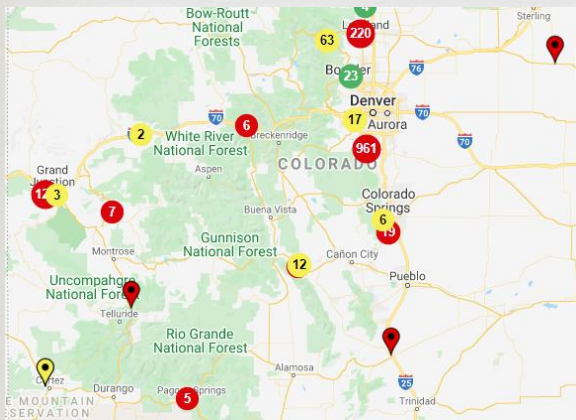


What makes this a better photo point? Angle and landmarks are viewed from the same direction. It is easier to visually compare the reduction of leafy spurge from these two images.

Mapping Data



- ❧ The Colorado Department of Ag requires data to be submitted via eddm maps
- ❧ Several different programs interface with eddm maps
- ❧ The CDA has a Survey123 (ArcGIS) form that can be customized for individual counties and has the same fields as eddm maps



Myrtle spurge in Colorado

References



- ❧ Colorado Department of Ag
 - ❧ Record Keeping Information: Commercial Applicator Business, Limited Commercial Applicator, Public Applicator
 - ❧ Pesticide Applicator's Act
- ❧ Weed Control in Natural Areas: Weed Research and Information Center University of California (DiTomaso et al)