



UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

FIELD CROP NOTES

SISKIYOU COUNTY

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FALL 2006

IN THIS ISSUE:

- **Upcoming Meetings:**
 - *Siskiyou County Pest Management Seminar*
 - *Western Alfalfa & Forage Conference*
- **New Tool for Controlling Thistles**
- **Fall Fertilization of Alfalfa**

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Upcoming Meetings

The annual **Siskiyou County Pest Management Seminar** will be held this year on November 30th at the Miner's Inn Convention Center. The meeting is co-sponsored by the Siskiyou County Agricultural Commissioner's Office and UC Cooperative Extension. The meeting addresses important pest management issues in the county and is an opportunity for growers and Pest Control Advisors to get continuing education hours. More details will follow in an upcoming mailing.

The **Western Alfalfa and Forage Conference** comes to Reno. As part of the 4 year rotation of locations for the California Alfalfa Symposium, this year's meeting will be held in Reno, NV. We combined forces this year with other Western states to provide an outstanding program and tour. The tour is on the 11th of December and the conference follows on the 12th and 13th. The full agenda and registration information follows at the end of this newsletter. I would strongly encourage you to attend because it looks like an excellent agenda with important information relevant to producers in this area.

New tool for controlling thistles and other troublesome broadleaf weeds

A new herbicide, Milestone, was registered for use in California earlier this month. I have evaluated Milestone over the past 2 years in Siskiyou County and the results are very encouraging. Milestone will likely



become the new standard for controlling many noxious weeds, including yellow starthistle and difficult-to-control perennials

like Canada thistle and Russian knapweed. There are over 50 weeds on the recently-approved label and next version of the label has over 90 weeds. Milestone is applied at 3-7 oz per acre and has both pre- (up to 4 months) and post-emergent activity. Milestone does not injure grasses so it can be used in range, pasture, non-crop areas and natural sites. It may be applied up to the water's edge in many areas (check the label for details).

Many Siskiyou County residents have used Transline to control yellow starthistle with excellent results. Milestone is very similar to Transline in its use pattern and the weeds controlled. However, there are some distinct advantages for Milestone. Next to yellow starthistle, I probably get more questions on how to control fiddleneck (fireweed) than any other weed. Transline does not control fiddleneck so it proliferates following an application of Transline if Transline is not tank-mixed with another herbicide that controls fiddleneck. Fortunately, Milestone controls both yellow starthistle and fiddleneck.

Canada thistle is another problematic weed for growers and ranchers.

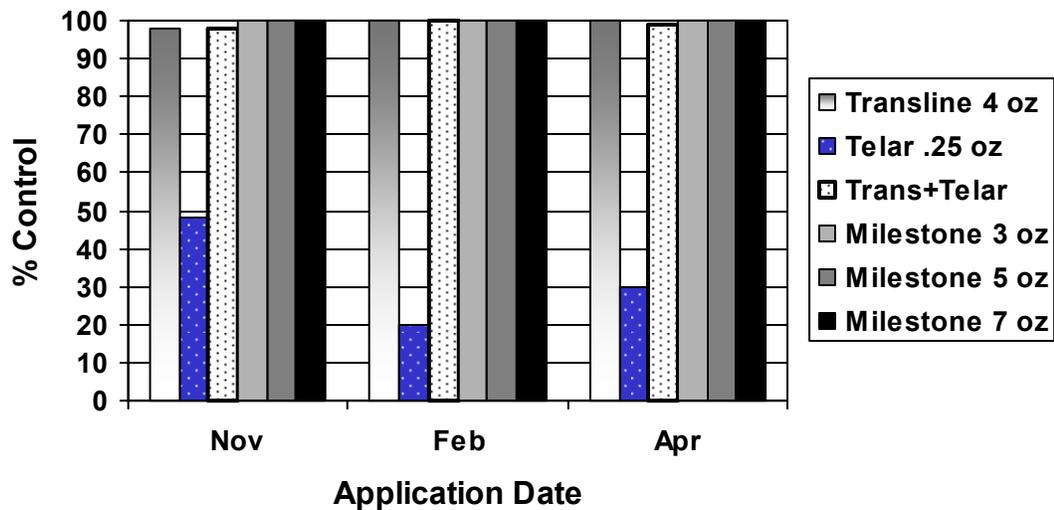
Transline has given better results than other herbicides. However, Milestone at the rates recommended for Canada thistle (5-7 oz) is more effective than Transline at its highest labeled rates.

You are probably thinking, "Yeah great...but what about the cost?" This is the other good news. From what I have heard, the cost per gallon is about the same for Milestone as it is for Transline. However, Milestone is generally more than twice as effective as Transline so the cost for a treatment will be considerable less.

I conducted a trial last year to evaluate different rates of Milestone compared with Transline and Telar. Telar was included in the treatments because it is very effective for controlling fiddleneck; however, as shown in the chart, it is not very effective for yellow starthistle control. Four different treatment dates (November, February, and April) were evaluated to determine the best month to make an application. Unfortunately, there was not enough fiddleneck in this trial to evaluate, but research in other areas has demonstrated the effectiveness of this herbicide for fiddleneck control. All three rates of Milestone resulted in perfect yellow starthistle control at each of the three application dates. Even lower rates than these have been effective in research trials for controlling yellow starthistle but rates less than 3 oz per acre are below the label rate so the effectiveness is at the risk of the user.

Milestone should be an herbicide of interest to many Siskiyou County farmers and property owners. An effective method for controlling both yellow starthistle and





fiddleneck (as well as many other noxious weeds) at a more reasonable price is something producers have been looking forward to for a long time.

Fall Fertilization of Alfalfa

It is not a common practice to fertilize alfalfa in the fall in the Intermountain Region. Perhaps once the harvest season is over most growers want a break and are not thinking about next year's season. However, there may be some benefits to fall fertilization.

The greatest response to fertilizer typically occurs in the first cutting for a couple of reasons. The yield of first cut is usually the highest of the season. For example, averaged over several years and varieties in UC field trials in this area, 42% of the total seasonal yield occurred on first cutting with a 3-cut schedule. Therefore, the nutrient needs of the crop are much greater in the spring simply because so much of the forage production occurs at that time. In addition, soil nutrients are not as available in the spring as they are later in the season because of the cool soil temperatures and reduced microbial activity in the soil. Therefore, to get full benefit from a phosphorus or potassium containing fertilizer, it should be applied at least 60 to 90 days ahead of a cutting. Working backwards from a late May or June cutting, would mean that the application should probably be made in early March at the latest for most areas.

It can be difficult to make applications to all fields in a timely manner simply because of the number of fields that need to be fertilized at the same time and spring-time weather conditions are often challenging and unpredictable.

Advantages of fall fertilization

- Ample time for fertilizer to be incorporated into the soil and available to plants
- Lengthens the application window (two distinct application times) making it easier to get across all the fields in fall or spring
- Fertilizer prices are sometimes lower
- Spending money in this income tax year is sometimes beneficial

Both potassium and phosphorus are immobile in the soil (unlike nitrogen which is very mobile) so there is not a risk of the fertilizer being leached too deep with winter rains. In fact, phosphorus may move only an inch in the soil in a full year.

If you have not taken a tissue test to assess the nutrient status of your field, you can have the soil analyzed because soil tests are reasonably accurate for evaluating phosphorus and potassium needs (however, they are not reliable for sulfur, boron or molybdenum). We are finding an increasing number of potassium-deficient fields (especially in Scott Valley) while many other fields have high levels. Therefore, it is important to test your fields so that you

don't sacrifice yield or so you don't apply fertilizer unnecessarily. The following figure shows potassium deficiency symptoms—pinhead-sized white or yellow spots on new leaves. If you ever see this in your field, the chances are excellent that the alfalfa is potassium deficient.

The following table lists the recommended amount of fertilizer to apply based on soil or plant tissue tests. First decide on your expected yield level. Then using your plant tissue or soil test results decide whether your field is deficient, marginal or adequate. Look at where the appropriate row and

column intersect in the table to determine the recommended rate of phosphorus or potassium to apply. The column to the right shows the amount of fertilizer material (11-52-0 or muriate of potash) to apply. If you use a different phosphorus or potassium fertilizer source, simply divide the number in the first column (**P₂O₅** or **K₂O**) **by the percentage of phosphorus or potassium in the fertilizer you plan to use to determine how much of the fertilizer to apply.** The rates in the table should provide adequate nutrients for the coming year but it is still wise to analyze the plant tissue on first cutting to confirm the fertilizer program.

Recommended phosphorus application rates (phosphate or P₂O₅ and mono-ammonium phosphate 11-52-0) and potassium application rates (K₂O and muriate of potash) based on results of soil or plant tissue tests.

NUTRIENT	SOIL OR PLANT TISSUE TEST RESULT						
	YIELD LEVEL (TONS/A)	DEFICIENT (LB/A)		MARGINAL (LB/A)		ADEQUATE (LB/A)	
Phosphorus		(P₂O₅)	11-52-0	(P₂O₅)	11-52-0	(P₂O₅)	11-52-0
	4	60–90	115-175	30–45	55-85	0–20	0-40
	6	90–120	175-230	45–60	85-115	0–35	0-65
	8	120–180	230-345	60–90	115-175	0–45	0-85
Potassium		(K₂O)	0-0-60	(K₂O)	0-0-60	(K₂O)	0-0-60
	4	100–200	165-335	50–100	85-165	0–50	0-85
	6	200–300	335-500	100–150	165-250	0–75	0-125
	8	300-400	500-665	150-200	250-335	0-100	0-165

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DATED MATERIAL

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