

**Toxic Weeds****Insects****Industry Notes****Meetings**

Toxic Weeds

It is that time of year again to be concerned with weeds, particularly toxic weeds. The most common toxic weeds at this time of year are groundsel and fiddleneck. Both contain an alkaloid that can cause liver degeneration in cattle. The extent of damage is determined by the rate of ingestion over a period of time. Dr. Art Craigmill, UCD toxicologist, reports ingesting 5 to 10% of an animal's body weight daily (4 to 8 lbs of fiddleneck) for an 800 lb heifer could be fatal within 2 weeks.

A practical rule of thumb is that toxicity can occur if an animal eats hay having these weeds represent more than 5% of the dry matter. Intake of less than 1% of the dry matter is considered nontoxic. The problem with these alkaloids is that they are usually ingested in amounts that are not readily toxic, and the liver degeneration may take months before the animal is culled due to "poor performance." Ensiling has not shown conclusive proof that the fermentation process detoxifies the material. These weeds are bitter and cattle usually graze "around" them. Green chopping along with "clean" forage will mask the taste but intake is unknown.

The best control of the problem is with preemergence herbicides. Once growing, a contact spray such as bromoxynil (Buctril) can be more effective than 2,4-D or MCPA. Diluting groundsel or fiddleneck infested

forage may reduce rate of liver damage in the animal, but intake control is the surest way. For more information on these weeds, call the farm advisor office at 733-6488.

Insects

The wet winter and warm spring means more mosquitos, gnats, and flies as the season progresses. Now is the time to start mosquito and gnat control by reducing weeds around lagoons, eliminating excess lagoon floatage with better solids separation, and remember to fluctuate lagoon water level on "beach areas" by alternately flooding or drying out where insects lay eggs. Follow the seven points listed by the local abatement agency to help reduce encephalitis from mosquitos and bluetongue from gnats.

1. Wastewater ponds need a 12-foot-wide access road around them.
2. Interior banks need a 1:1 slope for the first 10 feet.
3. No fencing between access road and pond.
4. No refuse material to inhibit spraying.
5. Owners are responsible for weed and floatage control.
6. Separator bypass drains must be equipped to prevent pond floatage.
7. Pond-to-field discharges should not stand more than 4 days.

Most dairy lagoons are well managed, but it only takes one disease outbreak to affect the whole industry. Lagoons that are suspect are those with less than 2 feet of free bank space (freeboard) from surface to top of levee, "dead" corners where little wind action can occur, or floatage is not "chained" to one end and removed.

Industry Notes

Sodium carbonate used in soft drinks and toothpaste has proven in lab tests to be lethal to E.coli bacteria in cow manure. USDA researchers estimate a treatment cost of about \$10/cow yearly. Large-scale on-farm tests must be conducted to see if results will be as good.

According to a recent report from Narain Naidu, microbiologist at Cal Poly-Pomona, a small amount of lactoferrin from cow's milk on the surface of meat can protect against E. coli 0157:H7, Salmonella, Campylobacter and 27 other kinds of bacteria. This natural compound with antimicrobial properties provides a protective barrier against these harmful bacteria.

A report from Ohio states the following impact from a new 2,500-cow dairy on the local economy, with a construction cost of \$5 million. For each \$1 spent on construction the ripple effect would be additional local income of \$3.6 million and 102 new jobs created. Once up and running the dairy would generate \$7.6 million in direct sales of product, \$4.3 million from sales of inputs to the farm, and \$1.6 million in new household spending. Those funds in turn would create another 128 jobs.

Milk production over the past 10 years has risen 9.7% in the USA. Biggest gainers were New Mexico, 210%; Idaho, 119%; Arizona, 78%; Nevada, 52%; and California, 46%. Biggest losers were North Dakota, 37%; Arkansas, 36%; Wyoming, 36%; Tennessee, 36%; and Illinois, 28%. On a market share basis California leads with 19% of USA production, followed by Wisconsin, 14%; New York, 7.4%; Pennsylvania, 6.7%; and Minnesota, 5.8%. These five states combined for 53% of USA milk. Minnesota's milk production is forecast to drop 15% from the

current 9.2 billion lbs/year to 7.8 billion lbs by 2008, and it was stated as partly due to environmental roadblocks at all levels of government.

Meetings

Pre-Evaluation of Dairy for Quality Assurance Certification

May 3, 2000 • 2 to 4 p.m.
UCVMTRC, Tulare

Call dairy advisor at 733-6488 by morning of 2nd for seating reservation.

Business Succession and Estate Planning

May 9, 2000 • 10 a.m. to noon
Edison AgTAC, Tulare

Guest Speakers: Karen Hall and Tory Sherman of Roush Group-Merrill Lynch.

Free seminar and lunch.

Call (888) 522-3384 or (559) 436-3367 by the 8th for reservations.

Demonstration: Lagoon Water Flow Meters

May 9, 2000 • 10 a.m. to noon
Rio Blanco Dairy (Wilbur's)
Ave. 192 x Rd. 52, Tulare
(see annex for details)

Tom Shultz
Dairy Advisor
(559) 733-6488

**If you use lagoon water on your fields, then you will
want to attend the following meeting:**

Water Meters for Measuring Flow of Lagoon Water

Date: May 9, 2000

Time: 10 a.m. to noon

Location: Rio Blanco Dairy

South side of Avenue 192 and just west of Road 52
Turn south on the dirt road on the west of the dairy

Dr. Larry Schwankl, Department of Land, Air, and Water Resources, University of California, Davis, has installed and tested several water meters designed for use with lagoon water. These meters will be on display, and the results of the meter tests will be presented.

Background

Dairy lagoon water contains many nutrients needed by crops, particularly nitrogen and potassium. It can be a valuable source of fertilizer, reducing the amount of commercial fertilizer needed. If using lagoon water as a fertilizer source, the first step is to know how much lagoon water is being applied. Various methods, such as measuring pond drop or estimating the output of the lagoon pump, can be used to determine the approximate amount of lagoon water applied, but meters are more accurate and much easier to use. Using a flow meter and valve with lagoon water analysis, target fertilizer rates can be applied.

Not all flow meters are created equal. Lagoon water, because of all the solids, cow hairs, and gunk that it has, requires different types of flow meters than can be used with well water or canal water. The purpose of this field day is to show the types of meters that work with lagoon water, what pipeline requirements are needed for meter placement, and to discuss the performance of the meters tested.

(For planning purposes, please call the Cooperative Extension Office, 733-6363, by May 8th if you think you will be attending.)