In Balance

a newsletter for the Whatcom County Dairy Industry

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Yield-Reducing Disease Affecting Orchardgrass Prevalent In Local Fields

A disease affecting orchardgrass is taking its toll in many parts of Whatcom County. The disease is called Cocksfoot mottle virus (CMV). "Cocksfoot" is the name by which Orchardgrass (*Dactylis glomerata*) is known in Great Britain. In fields afflicted with CMV, especially after the third year of establishment, yields are reduced because the virus kills individual plants. The resulting bare areas fill in with weedy species like annual bluegrass, chickweed, dandelions and curly dock.

Symptoms: Late March and early April are the best times to inspect fields for evidence of CMV (subnormal temperatures will probably advance this date by a week or so this year). Diseased plants have a yellow appearance through the entire plant or a portion of the plant. Infected plants are always scattered across the fields and are not typically massed close together.

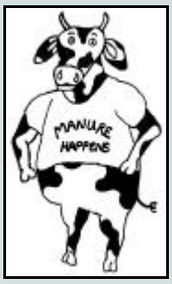
Prevention: Once plants become infected, there is no cure for CMV. The disease is spread primarily through harvesting equipment. The best way to stop the spread of CMV is to inspect fields in March and April and rank fields by their level of infection. Fields showing the least amount of infection (probably the newest seedings) should be harvested first before moving equipment into more infected fields. In cases where older stands with high levels of infection must be harvested first, which may occur if the fields were seeded with earlier maturing varieties, harvesting equipment should be thoroughly cleaned with bleach after harvesting the highly infected fields.

Orchardgrass affected by Cocksfoot mottle virus (CMV).

Orchardgrass varieties also vary in their resistance to CMV, so CMV resistance should definitely be considered when deciding which variety of orchardgrass to seed. Consult with your seed dealer (or the website listed below) to find out which orchardgrass varieties offer the best resistance to CMV. To find out more about CMV, check out website: www.farmwest.com.

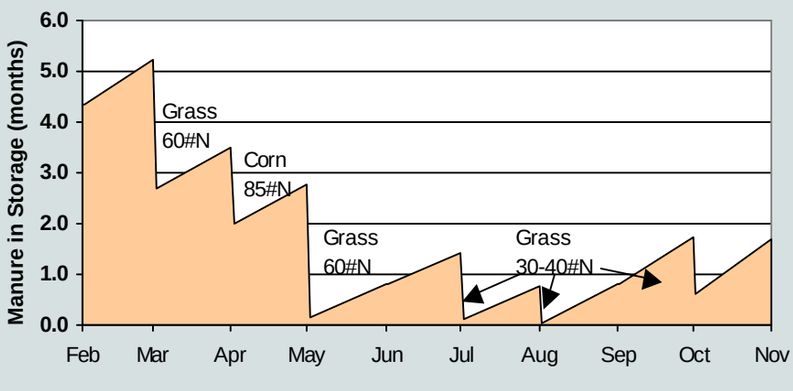
Get the Most Benefit From Manure: Apply It Early - Apply It Often

A one-time mayor of Chicago advised his constituents: "Vote early and vote often". Though hardly ethical, his approach was effective because he was returned to office again and again. The same "early and often" strategy is equally effective when it comes to applying manure (see Figure 1). The following points underscore the merits of this strategy:



- **"You've got to grow it to mow it"**: Grass growth rate peaks in May and June, but grass will not produce to its full potential if it doesn't get fed nutrients both prior to and during this period of peak growth.
- **"You can't make up for lost time"**: Delaying the bulk of manure applications until the middle and late part of the growing season will not stimulate grass to produce what it couldn't earlier due to a lack of nutrients.

Figure 1
Suggested Manure Application Management for a Dairy
(30% corn, 70% grass)



- **"More isn't always better":** Undesirable consequences of applying too much manure in a single application include increased plant mortality due to smothering and ammonia toxicity, as well as an increased risk of excessive nitrates in feed (see "Tips to Minimize Risk of Nitrate Poisoning" article on Page 2).
- **"All filled up and nowhere to go":** Applying manure early and often helps avoid heavy applications late in the growing season and helps ensure that waste storage structures will be emptied.

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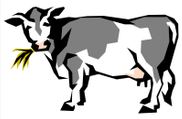
Tips To Minimize Risk of Nitrate Poisoning



Dairy cattle that have consumed excessive levels of nitrate in feed may exhibit any of the following symptoms: lack of appetite, weakness, depressed milk production, trembling with a staggering gait, labored breathing, rapid pulse rate, frothing from the mouth, abortion, chocolate brown blood and death. The best way to prevent nitrate poisoning is to minimize factors contributing to excessive nitrate accumulation in feed:

1. In plants, nitrate levels rise with increased rates of applied nitrogen from manure and fertilizer. Apply nitrogen at recommended agronomic rates and times.
2. Well water may be one source of nitrate for both plants and animals. Test well water to determine its NO_3-N concentration. After testing, account for the nitrogen from this source when calculating crop nutrient budgets and livestock intake (e.g. 1 foot of irrigation water with an NO_3-N concentration of 10 ppm provides 26 pounds of nitrogen).
3. After manure and fertilizer are applied, it takes about two weeks for nitrate to reach its peak accumulation in plants. Apply nutrients long enough before harvest to provide time for nitrates to be converted by the plant into other compounds.
4. Weather conditions that stop or slow plant growth can cause nitrate levels in plants to become elevated. These conditions include sudden droughts under high summer temperatures, a sudden frost, or cool, cloudy weather. When these events occur, consider delaying harvest for 10 or more days.
5. Forages differ in their potential for accumulating nitrates. Timothy, perennial rye, and legumes accumulate fewer nitrates than tall fescue, orchardgrass and Italian rye.
6. Nitrate levels in plants vary by season. Summer harvested forages tend to have higher nitrate levels than those harvested in spring and fall (even when crude protein levels are equal). Even at crude protein levels of 15%, some summer harvested feeds are dangerously high in nitrates. Pregnant animals are the most vulnerable.
7. Ensiling reduces nitrates (by up to 50%), so make silage from suspected forages instead of hay or green-feed.
8. Lambsquarter, redroot pigweed and Canada thistle are all weeds that accumulate nitrate at extremely high levels. Control these weeds before they have a chance to grow and spread and avoid harvesting them.
9. Nitrate accumulates in plant stalks and stems. Prior to harvest, raise the cutter bar on suspected crops.
10. Always test the nitrate level in suspected forages before feeding them to livestock.

Dairy Nutrient Management Plan Certification

During the 2001 Washington State legislative session, a law was passed giving dairy farmers an opportunity for a sales tax exemption on equipment necessary to maintain practices recommended in their dairy nutrient management plan (DNMP). Dairy producers are eligible for the sales tax exemption only after their DNMP is certified. The law requires that all DNMPs be certified by the end of December 2003.

The DNMP certification process can be lengthy for a variety of reasons:

- Prior to certification, a District dairy planner must inventory the dairy to ensure full installation/implementation of all practices called for in the plan.
- Full DNMP implementation includes presence of filter strips next to all ditches and streams. In silage corn fields a relay crop (i.e. Italian rye seeded between rows at final cultivation) can substitute for perennial grass filter strips, if the relay crop covers the entire field.
- A farm with significant changes in operation since its DNMP was approved (e.g. addition of new facilities, increase in herd size) may need a plan update before certification.
- Not all dairies in Whatcom County have an approved DNMP. June 30, 2002 is the deadline for approval. DNMP planning will receive priority over DNMP certification and updating until after the June deadline.
- Before the DNMP can be certified by the District, dairy producers must certify that they are managing nutrients in the manner specified in their plan.
- The Conservation District Board must approve each DNMP certification. Certification approvals will occur only at monthly Board meetings.
- Once the DNMP is certified, the District notifies the Department of Ecology. Ecology then notifies the Department of Revenue that a dairy producer is eligible for a tax exemption.

District Board of Supervisors Election Set for June

Whatcom Conservation District will hold an election to fill a position on its Board of Supervisors some time during June 2002. To appear on the June ballot, supervisor candidates must return to the State Conservation Commission a nomination petition with 25 valid signatures on it 30 days prior to the date of the election. Write-in candidates have until 7 days after the election to submit their nomination petition. **If you are interested in running for this position, contact the District office for nomination petitions and information about duties and eligibility requirements!**