

In Balance

A Newsletter for the Whatcom County Livestock Industry



Joyce Jimerson and Dick Yoder Fill Conservation District Board Positions

Two positions on Whatcom Conservation District's (WCD) five-member Board of Supervisors have been filled. In March the WA State Conservation Commission appointed Joyce Jimerson to the WCD Board. Dick Yoder joined the Board in June. Jimerson is an Extension Agent with Whatcom County Cooperative Extension where she has coordinated the Master Composter/ Recycler program for the past seven years. Yoder and his son Dale raise beef cattle in the Custer area. Yoder grew crops for the county's once thriving frozen vegetable processing industry, and he was also a dairy farmer.

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Whatcom
CONSERVATION DISTRICT

Board of Supervisors

Jerry Van Dellen, Chair
Cornie Timmermans, Vice-Chair
Rod Visser, Treasurer
Joyce Jimerson, Supervisor
Dick Yoder, Supervisor

WCD Livestock Team Staff

George Boggs, Chris Clark,
Chuck Timblin

Filter Strips: Kill Pathogens in Manure by Creating Space between Application Areas and Water

Table 1. *Survival of Animal Fecal Pathogens in the Environment*, supports the idea that dry surfaces and warm temperatures are two conditions that some of the most harmful pathogens present in manure can't stand. When exposed to these conditions fecal coliform bacteria take only a day or so to die. But if the bacteria make it to water, they can survive for much longer periods (84 to 300 days). Maintaining filter strips between manure application areas and ditches provides the best way of creating the lethal combination of warm and dry conditions necessary to destroy fecal pathogens.



Sunshine is the best disinfectant: The buffer maintained between where manure was applied and the field ditch lowers the odds of pathogen survival.

Table 1. Survival of Animal Fecal Pathogens in the Environment

Material	Temp	Duration of Survival		
		Salmonella	Cryptosporidium	E. coli 0157:H7
Water:	frozen	> 6 months	> 1 year	>300 days
	cold (41F)	> 6 months	> 1 year	>300 days
	warm (86F)	> 6 months	10 weeks	84 days
Soil:	frozen	>12 weeks	> 1 year	>300 days
	cold (41F)	12-28 weeks	8 weeks	100 days
	warm (86F)	4 weeks	4 weeks	2 days
Cattle Feces:	Frozen	> 6 months	> 1 year	>100 days
	cold (41F)	12-28 weeks	8 weeks	>100 days
	warm (86F)	4 weeks	4 weeks	10 days
Slurry:		13-75 days	> 1 year	10-100 days
Compost:		7-14 days	4 weeks	7 days
Dry Surfaces:		1-7 days	1 day	1 day

THE PRE-SIDEDRESS SOIL NITRATE TEST (PSNT) FOR SILAGE CORN: Heed it and Reap – Cut Costs by Thousands of Dollars Without Cutting Yields

Mid-June to mid-July is the time for a corn silage grower to decide how much sidedress nitrogen fertilizer his crop needs. This decision has been made easier because a reliable soil test, called the pre-sidedress soil nitrate test (PSNT), is available that relieves both corn growers and their fieldsmen of the need to "guesstimate" how much sidedress nitrogen is needed. The PSNT is performed when corn is about 12-inches high to evaluate nitrogen fertilizer need. By using this test growers can save thousands of dollars (\$20 to \$40 an acre) in added costs, without sacrificing yield or quality. Table 2 provides recommendations for sidedressing silage corn.

Table 2.

PSNT value: (ppm NO3-N)	Sidedress N Recommendation (lbs/Acre)
> 30	0
26 to 30	40 (OSU recommends 0)
21 to 25	80
16 - 20	120
0 to 15	160

Conservation Security Program: Protect Benefits by Applying Nutrients Agronomically

The Conservation Security Program (CSP) provides payments and technical assistance to agricultural producers for maintaining and enhancing natural resources. The CSP will be open to producers who have practiced good stewardship on their agricultural lands and provides incentives for those who want to do more. The Natural Resources Conservation Service (NRCS) state office has nominated both the Nooksack River Watershed and the Fraser River Watershed (e.g. Johnson Creek, Sumas River, Saar Creek) for CSP eligibility in 2006. Final approval by NRCS's national office is expected but has not yet been announced.

NRCS groups natural resources into the following categories: Soil, Water, Air, Plants and Animals (including humans). CSP benefit eligibility focuses most heavily on water. Therefore, producers will be awarded benefits based on what they are currently doing to protect surface and groundwater on the land they farm. Nutrients must be applied based on realistic yield goals. Producers must supply records showing dates, amount, rate, form and application method of nutrients applied. The pre-sidedress nitrate test (PSNT) is one test producers will need to take if they grow corn and plan on sidedressing it with fertilizer or top dressing it with manure. Producers will then be expected to base their nutrient applications on recommendations presented in Table 2.

HELP KEEP GOOD DITCHES FROM GOING BAD:

Remember That Good Ditches Make Good Neighbors

Ditches may require periodic cleaning to remove sediment and vegetation, but some ditches require less frequent cleaning than others. Significant economic benefits exist to extending the interval between cleanings: the longer the interval, the lower the cost over time of maintaining a ditch. Additionally, the longer a ditch performs its function of removing excess water, the longer agricultural producers achieve the full productive potential of their land.



The lack of a vegetated filter strip along this field ditch presents risks of water quality degradation due to erosion and bacterial contamination. The ditch also requires more maintenance at a higher financial cost over time.

Some local producers have found a way to at least double the time they can keep the ditches draining their land open and functioning optimally: they establish and maintain permanent grass and/or trees and shrubs along them. In situations where grass along the ditch was absent (such as when they rotated a field from grass to corn) their ditches tended to erode and fill in faster. Now they maintain permanent grass filter strips or field borders in annually cropped fields in order to trap sediment in surface runoff and to bind soil so it can't slip away.

QUESTIONS & ANSWERS: Constructed Seasonal Ditch Maintenance

What are constructed seasonal ditches?

1. They have no head waters such as streams, wetlands or springs.
2. They only carry water from local surface areas and/or subsurface drains.
3. They are dry at least part of the year.
4. They were constructed for the purpose of removing excess water from farmland in order to improve crop production.

Is a permit necessary to perform maintenance activities such as mowing and sediment removal on a constructed seasonal ditch? No.

Could maintenance of a constructed seasonal ditch result in violation of water quality laws?: Yes. Water quality standards, which are subject to enforcement by the Washington State Department of Ecology, must not be violated while performing maintenance work. Maintenance work, even if it is done on a dry ditch, must not have a negative impact on fish and other aquatic life both during and after completion of the work.

What is one of the Best Management Practices (BMPs) that will help minimize the entry of sediment downstream from sites where maintenance on constructed seasonal ditches is performed? One of the best BMPs is establishment of permanent grass and/or trees and shrubs along ditches and streams to help stabilize ditch banks and trap sediments in field runoff. *Keep in mind that this is not the only practice that is necessary to prevent water quality degradation when constructed seasonal ditch maintenance is being done.* WCD is currently preparing a fact sheet with a list of ditch maintenance BMPs.



Grass and/or trees and shrubs would have stabilized the bank and would have prevented the kind of erosion and potential water quality violation in this photo.



The wider buffer on the right side of this field ditch helps stabilize the bank and prevents the type of erosion occurring in the photo to the left.