

Check Your Vacuum Regulator

Editor's Note:

The National Mastitis Council based in Arlington, VA, from time to time releases information related to dairy herd management. Here's important information about the operation of your milking machine.

ARLINGTON, Va. — The vacuum regulator on your milking system is one of the system's most important components.

It has two major functions: control the vacuum level and compensate for many forms of vacuum usage in order to maintain the present level. For example, it must compensate for the intermittent air admission of the pulsators, unit air bleeds and other unpredictable operator events such as put-ons and take-offs.

Pressure (negative pressure or vacuum) changes within the milking system occur at very high speeds approximately the speed of sound (1,080 feet per second). The control must react to these pressure changes rapidly and correct for sudden air admissions.

The types of regulators that respond rapidly to vacuum changes are the servo-diaphragm

types. They also are superior in load sensitivity characteristics. This means that the vacuum level is more constant under a wider range of air flow through the regulator.

Spring loaded sleeve type regulators are acceptable in performance. Dead weight controls usually are adequate for small milking systems. The lever weight controls are the least responsive and should be replaced for better system performance.

Service the vacuum control on a regular basis. The operating vacuum level should be checked each day. Change filters on a regular basis. Keep the internal operating valve clean. A 30-day interval for servicing the operating valve usually is sufficient.

Regulator performance can be tested with the use of an airflow meter. Increments of 5 to 10 cubic feet per minute (CFM) are admitted to the system. After each increment, the vacuum level is noted and recorded. An excellent regulator will sustain the vacuum level within 1/2 inch of mercury when 90 percent of the available vacuum reserve is admitted to the system.

If the vacuum level drops up to 1 inch of mercury, the regulator is marginal. If vacuum drops over 1 inch, the regulator should be replaced if a thorough cleaning and adjustment does not improve performance.

A simple test can be made by the operator which will give some indication of regular performance, provided that vacuum supply is adequate. Duplication of a fall-off is a good indicator of system performance. The test is done simply by turning one or more units upside down and observing the vacuum level. One unit for every 6 to 8 units in the system is suggested. The remaining milking units should be pulsated, but do not make this test while milking cows. Follow the same guidelines as above with respect to system performance. For example, if two units are turned upside down with the shut-off valves fully opened in a parlor with 16 units, and if the vacuum drops only 0.4 inch of mercury, excellent performance is indicated.

In summary, remember that the vacuum regulator is one of the most important components of the

milking system. The filter and operating valve must be kept properly serviced and clean. A regular check of regulator performance

can be made by duplicating a unit fall-off and observing the ability of the regulator to sustain vacuum level.

Bucks County Holstein Winners

WRIGHTSTOWN (BUCKS CO.) — The Bucks County Holstein Show, held at the Middleton Grange Fairgrounds hosted more than 60 entries judged by Creedin Comman of Just a Beauty Holsteins in Carlisle in York county. Capturing the Premier Breeder and Premier Exhibitor Awards this year was the Delaware Valley College. Delaware Valley College had three of the five animals selected from the show entries for best udders.

Raymond and Rachael Gross took the grand championship rosette with Grosslyn Bell Chime who also was selected as having the best udder in the show. This Four-year-old is the daughter of Grosslyn Astronaut Camille. She was sired by Carlin-M Ivanhoe Bell.

The college took the reserve junior champion award with DVC Man Dingle, the first place winner in the junior heifer calf and took the number one spot in the best three junior females competition.

The college's entry in the junior two-year-old heifer class, won best udder in her class and went to become the reserve grand champion female.

Produce of Dam went to Craig and Betsy Walton with Fountain Farm Jet Queen. Dam and Daughter went to Delaware Valley College with the dam DVC Sexation Apple and in the number two spot was Stephen Worthington with the

dam Curly Hill Marvex Lou.

- Junior Heifer Calf**
1 Delaware Valley College, 2 Dwayne Helm
Intermediate Heifer Calf
1 DVC, 2 Richard Moyer, 3 Carl Slack
Senior Heifer Calf
1 Craig Walton, 2 Elizabeth Walton, 3 DVC
Summer Yearling
1 Carl Slack, 2 Carl Slack
Junior Yearling Heifer
1 Elizabeth Walton, 2 Ryan Worthington, 3 DVC
Intermediate Yearling Heifer
1 Craig Walton, 2 J.J. Daabs, 3 Carl Slack
Senior Yearling Heifer
1. Terry Slack, 2 Stephen Worthington, 3. J.J. Daabs.
Junior Champion Female
Craig Walton
Reserve Junior Champion
Delaware Valley College (open)
Elizabeth Walton (4-H)
Dry Cow- Five Years and Over
1 Craig Worthington, 2. Raymond & Rachel Gross.
Junior Two Year Old Heifer
1. DVC, 2. Kenneth Worthington, 3 Craig Walton.
Senior Two Year Old
1. Brenda Slack, 2. Ryan Worthington, 3 Har-Ann Farm.
Three Year Old
1. Andrew Worthington, 2. HarAnn Farm, 3 Carl Slack.
Four Year Old Cow
1. Raymond & Rachel Gross, 2 DVC, 3 Ryan Worthington.
Aged Cow
1. DVC, 2. DVC, 3. Brenda Slack.
100,000 lb. Class
1. Ryan Worthington
Best Udder Class
1. Raymond Gross, 2 DVC, 3 Andrew Worthington.
Grand Champion Female
Raymond & Rachel Gross
Reserve Grand Champion
Delaware Valley College
Premier Breeder/Exhibitor
Delaware Valley College
Best Three Senior Females
1. DVC, 2 Musicow Farm, 3. Curly Hill Farm
Produce of Dam
1 Craig & Betsy Walton
Dam & Daughter
1. DVC, 2. Stephen Worthing, 3. DVC.

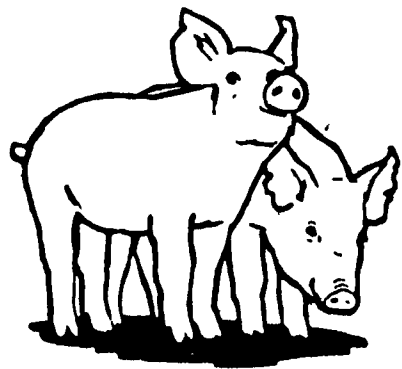
Cut Soil Erosion Losses

LANCASTER — Vast improvements in seeds, fertilizers and chemicals often hide losses in productivity caused by soil erosion. Erosion that many times is so slight you never realize the soil is disappearing. As a result, severely eroded knobs and hillsides simply don't have the productive capacity of other land.

According to Frank Lucas of the Soil Conservation Service, this fact is very apparent now. Corn growing on these severely eroded knobs and hillsides is showing the effects of prolonged dry weather. Much of this corn has already stopped developing while corn planted on the better soil is still

growing. Lucas said that severely eroded soils tend to be more acidic, have lower organic matter and less water-holding capacity. They are also more subject to compaction. As a result crops on these soils are the first to show moisture stress in dry weather.

Erosion steals the best portion of your soil first. Organic matter and the smallest particles of soil, which contain the most minerals and plant nutrients, are easily carried away by water runoff. Attached to those particles are pesticides and commercial fertilizer the landowner has paid for and never received benefits.



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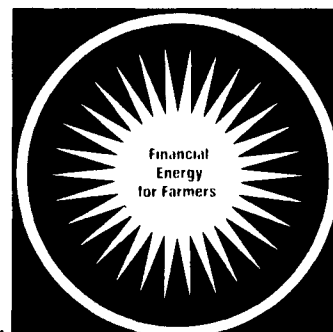
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