Minnesota DHIA News

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The 34th **Minnesota Dairy Health Conference** will be held from Wednesday May 6th to Friday May 8th, 2015 at the Crowne Plaza Hotel & Suites in Bloomington, MN.

Minnesota Dairy Health Conference

On May 6th, participants can choose from 3 preconference workshops this year: A full day workshop on lameness prevention and control lead by Dr. Gerard Cramer, University of Minnesota, and Dr. Nigel Cook, University of Wisconsin. Alternatively, attendees can select half day workshops that focus on the use Dairy Comp 305 records to assess the reproductive performance of dairy herds by Dr. Ricardo Chebel, University of Florida, or on better ways to engage your dairy farm employees with examples about novel approaches for employee training and education relative to milk quality by Dr. Erskine and colleagues, Michigan State University.

The main program of the conference over the next two days is equally diverse and will provide research updates on topics such as bovine leucosis, stockmanship, heifer raising, mastitis, residue avoidance and pain management. The organizers are very pleased that Dr. David Fraser will present the thought-provoking keynote address 'Could dairy production become a profession?'. Dr. Fraser (University of British Columbia, Canada) is a worldwide sought after expert for animal welfare. In addition to the scientific program, the Davis' family will be honored with the Dairy Appreciation Award. The Davis' family is the owner of the New Sweden Dairy, LeSoeur county, which is home of the Dairy Education Center of the University of Minnesota. For more information about the conference program and registration, please visit: http://www.cvm.umn.edu/vetmedce/events/MinnesotaDairyHealth/dairy/home.html or contact us at vetmedce@umn.edu.

12 Ways to Increase Profits

From Brant Groen's Presentation at Metro District Meeting

Brant Groen & Leonard Hoen Jr.

The #1 way on a dairy to make more money is more milk and #2 is lowering your costs. Brant Groen discussed his 12 Ways to Increase Profits at the Metro District Meeting. In the next few Members Messages, we will be sharing Brant's "12 Ways toIncrease Profits". Here with the first 3.

1. **Cow Comfort Maximizes Normal Behavior**

   Studies show that every extra hour a cow can lay down is 3.8 lbs. more milk, the ideal amount of time a cow lies down is 12 hours a day. For this to happen you want to maximize stall usage by having the right size and number of stalls. A few key things to think about include the position of the stalls, lunge space, cushion, teat-end exposure, and bedding.

   Included in "comfort" are ventilation and cooling, especially important in the coming summer months. You should have a minimum of 5 mph airflow over stalls, keep humidity below 75%, and potentially have a sprinkler system over feed lanes.

2. **Sorting, Scale Accuracy, Feeder Accuracy, First Delivered vs. Last Delivered**

   All of these issues can affect the diet your cows are receiving. Dry matter intake is associated with production of milk; with 1 lb. of extra dry matter meaning 2-2.5 lbs. more milk. Your TMR scales should be checked at least 4 times a year and routinely make sure the scale is level.

   Communication is an important factor on any dairy. Make sure everyone is consistent. Feed should be available 21 out of 24 hours. Feed should be fed at normal grazing level, which is 4-6 inches above where they stand. This level maximizes dry matter intake and more saliva production, getting the most money out of every bite.

   Another item to note is the amount of time cows are standing in a holding pen. The maximum amount of time spent in a holding pen should be 1 hour and for every 15 minutes. After that 1lb. of milk is lost per cow.

3. **Manipulate Lighting**

   16-18 hours of continuous light is the recommended for dairy cows. The average response to this is about 4-6 lbs more milk. Having light 24/7 can have a negative effect. Having florescent lights every 4 feet will provide the correct amount of light for most barns.

Raw SCC versus Linear Score (LGSCC)

The issue of Linear as compared to Raw SCC remains confusing for many people, including many dairymen. SCC (Somatic Cell Count) is a measure of white blood cells from the cow's immune system getting into the milk while fighting infections. It is not a direct measurement of bacterial infection, but is usually a good indicator. High levels
of bacteria will cause an increase in white blood cells to fight the infection. Cows with a LGSCC of less than 4--raw score of less than 200,000 are generally considered uninfected, while those with a LGSCC of more than 4 are considered likely to be infected. Since it is a measurement of white blood cells and not a measurement of bacteria causing infections, there will be some cows with a LGSCC of more than 4 that are not infected, and some with a LGSCC of less than 4 that will be infected. Each 1 point increase in LGSCC is correlated with a doubling of the Raw SCC.

Raw SCC is weighted by Production:
If a cow is giving 100 lb./day and has a high SCC, she will contribute 4 times the Somatic Cells to the Bulk Tank as another cow with the same SCC that is giving 25 lb./day. On the DHIA Herd Summary report, the Raw SCC score uses a weighted average that gives the dairymen an idea of how many Somatic Cells there are per Milliliter of milk in his Bulk Tank on test date. A high BTSCC (Bulk Tank Somatic Cell Count) may be coming from a small percentage of the herd having very high counts, or a large percentage of the herd having fairly high counts. So the BTSCC by itself does not give us a good indication of levels of herd infection. However, Raw SCC counts and BTSCC counts are very important because the numbers of Somatic Cells in the Bulk tank affects quality and shelf life of fluid milk, and impacts cheese yield. AND, the pay-price is dependant upon milk quality.

LGSCC (Linear Score) Not weighted by Production:
A cow with a LGSCC of 7 (1,600,000 Raw SCC) is very likely infected with mastitis whether she is giving 100 lb./day or 25 lb./day. So the average LGSCC on the DHIA Herd Summary is not weighted by production. Its purpose is to give the dairyman an idea of infection levels in the herd on test date. Studies show that for each rise in Lactation Average LGSCC above 3, older cows will lose about 400 lb of milk and heifers about 200 lb. For example, an older cow with an average LGSCC score of 6 for her lactation will lose approximately 1,600 lb of milk.

In the table on the right we can see the impact Cow A in Herd 1 has on the average Raw score of an otherwise low SCC herd. Note the higher LGSCC in Herd 2 due to the fact that 6 of the 10 cows are infected, even though the average Raw score is lower than Herd 1.

Herd 1 Test 1				Herd 2 Test 1		
Cow	Scc	Lgscc		Cow	Scc	Lgscc
A	6580	9		A	1170	6.5
B	110	3.1		B	880	6.1
C	100	3		C	800	6
D	90	2.8		D	720	5.8
E	80	2.7		E	610	5.6
F	50	2		F	600	5.5
G	40	1.7		G	100	3
H	40	1.7		H	90	2.8
I	20	0.7		I	50	2
J	10	0.1		J	40	0.7
Ave.	712	2.68		Ave.	506	4.4

The table on the left shows the big drop in Raw SCC for Herd 1 when cow A dropped from 6,580,000 to 880,000. But Cow F is a new infection and the higher Herd LGSCC reflects the fact that 2 cows are now infected. Cow A in Herd 2 also has a lower SCC on test 2, but the continued high LGSCC reflects the fact that 1/2 of the herd is still infected.

Herd 1 Test 2				Herd 2 Test 2		
Cow	Scc	Lgscc		Cow	Scc	Lgscc
A	880	6.1		A	100	3
B	110	3.1		B	880	6.1
C	100	3		C	800	6
D	90	2.8		D	720	5.8
E	80	2.7		E	610	5.6
F	720	5.8		F	600	5.5
G	40	1.7		G	100	3
H	40	1.7		H	90	2.8
I	20	0.7		I	50	2
J	10	0.1		J	40	0.7
Ave.	209	2.77		Ave.	399	4.05

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Minnesota DHIA now has a Facebook page. Check the page regularly for updates.

Can't Read Your Metal Tag? We can help

Minnesota DHIA is now selling 1"x1" triangular Official USDA NUES eartags that are equivalent to the Board of Animal Health steel tags. These use the Universal Allflex Tagger, come in yellow, and are $0.35 a piece.

Did You See Your Free Report this Month?

The DHI-403 Transition Cow Management Report provides analysis of seven important monitors that will help you discover opportunities for improving management of the transition period:

- **Dry Periods** - were they the proper length?

  Studies found that dry periods < 30 days = 5% to 15% less milk; >70 days = 10% less milk If shorter dry periods are targeted, are they being achieved? Are there too many early dries?

- **First Milk** - are cows producing well?

  Cows and heifers that have low first test milk weights likely had a problem in transition. Higher milk indicates dry matter intake is adequate and these cows should reach their potential for peak milk

- **Fat Protein Ratio (FPR)** - is it appropriate on the first test?

  A normal FPR of 1.0 to 1.6 on the first test indicates that cows began the lactation eating well, are maintaining bodyweight, and there are few metabolic and infectious disorders.

- **Udder Health - what percent of the herd does not have an SCC infection on the first test?**

  A high percentage of infected cows on first test (SCC score >4.0) indicates problems in the dry cow treatment program or dry pen conditions.

- **Reproduction** - are cows ready to breed soon enough?

  If cows have transitioned well and are healthy, and if breeders are doing their job, most cows should be bred within 30 days of the voluntary waiting period.

- **Turnover** - are cows surviving to 60 days in milk?

  Excessive fresh cow culling is financially devastating. Fresh cow culling is a critical measure of fresh cow health. Healthy fresh cows are likely to perform very well during lactation. Cows leaving prior to 60 days in milk most likely will not have paid for the cost of the dry period.

- **Distressed Cows** - what percent of cows were not distressed during transition period?

  Stressors during the transition period can cause cows to fail during the lactation for any of the reasons listed in the chart. *In addition to a graph showing the percent of cows not distressed, a list of recently calved cows with low milk and/or high SCC is provided highlighting the reason(s) why she is considered distressed.*

Johne's Disease: Management Practices that Work

Johne's Disease is recognized as one of the most costly infectious diseases in the United States dairy industry today, and it is well understood that producers should adopt management practices designed to control the transmission of Johne's in infected dairy herds. Strategies to control Johne's in an infected herd have historically focused on 1) eliminating transmission of the organism to susceptible cattle and 2) identifying and removing test-positive cattle. However, because test sensitivity is less than 50%, reliance on test-and-remove strategies will not be completely successful. Accordingly, management changes must be instituted as part of a control program to reduce transmission to susceptible livestock on infected dairies.

1. Maternity Pen Management – Calve Johne's positive cows in individual calving pens if possible to reduce the spread of Johne's to other calves. Remove the calf from the cow as quickly as possible.
2. Off-Site Heifer Raising – calves removed from the dairy at 1 day old versus 30 or 180 days old are less likely to become infected with Johne's disease.
3. Colostrum Management - One study reported that up to 22% of infected cows shed the organism in milk and colostrum (Streeter et al., 1995). Options to reduce transmission risk through colostrum could include avoiding feeding pooled colostrum, feeding colostrum from "test-negative" cows, pasteurize colostrum, or feeding either commercial milk replacer or pasteurized waste milk to calves. To pasteurize colostrum, heat the colostrum at 60^{o}C for 60 min. This method preserves the immunoglobulin proteins (IgG) while reducing or eliminating Johne's pathogens.
4. Managing Adult Cattle – although the infection level is highest in young stock, passive transmission can occur in adult cattle. Since cows may not show symptoms for a few years after infection, they may be transferring Johne's to other adult cows while they show no clinical signs.

Anniversieries

Craig & Mary Vangsness, of Goodhue County, are celebrating there 35 year anniversiery with Minnesota DHIA. In 2014 they served 247 herds with 38,847 cows. Please extend your congratulations to them on their next visit to your farms.

Did You Know…
In the month of January 4,909 Milk Elisa Pregnancy Tests were run by the Zumbrota & Sauk Centre Labs

February Milk Quality Leaders ranked by SCC, then Log SCC

*denotes herd owner name used in leiu of farm name

	SCC	#Cows			SCC	#Cows
RKB DAIRY	33	126		LINDO FARMS	73	42
JOHN ZOELLICK	35	25		LANGHORST BROS DAIRY	73	41
*WALLY WIESE	35	22		*DAVID & SUE OLSON	73	298
*KEVIN+CAROL SCHAFER	38	27		MITCHELL KRUGER DAIRY	73	46
*ANDY & DARIENNE FRICKSON	40	85		HOFFMAN NORTH-CREEK	74	312
NU-DIMENSION HOLSTEINS	40	31		BECHTOLD BROS	74	64
*JOHN LARSEN	41	22		*STACY & JULIE MILLER	74	95
SHIR-MAN HOLSTEIN FARM	44	72		GREGORY DAIRY LLC	75	88
*JEFF BLENKER	48	35		BROOKSIDE DAIRY	75	480
*HESSE DAIRY FARM HESSE	48	99		*LARRY LEXVOLD FAMILY	75	52
MAREN JEREMY HOLST LTD	48	97		JOHNSON DAIRY	75	106
*MIKE AND DONNA TELLERS	49	54		O'REILLY DAIRY CASEY	76	92
*DALE AND JULIE SCHWARTZ	50	104		*LYNN + RACHEL MILLER	76	97
QUINCY VALLEY FARM	53	73		*STEVE VILAND	76	46
HOEFS' DAIRY	53	270		RIVER VALLEY DAIRY LLC	77	105
LEROY DROPPS	53	23		*DENNIS AND WAYNE WOLTERS	77	130
ALLEN DEUTZ DAIRY	53	59		MACLAND HOLSTEINS	77	38
HIESERICH FARM	55	89		BOETTCHER DAIRY	78	158
SELKE FARMS	55	243		*BILL MILLER	78	232
*DANIEL HOEN	56	30		*JACOB + GREG GOLOMBESKI	78	35
SCHEFERS BROTHERS	56	76		BURKE AND SHEA FARMS	79	92
*FRANK & IONE PATRICK	56	58		KURTHLAND DAIRY	79	37
*ROBERT & RAMONA WIPPLER	56	33		HIDDEN HILL DAIRY LLC	80	351
*MARK KLEHR	57	58		HILKE-ERIC	81	97
HIGH POINT DAIRY	58	103		*PETER+DAVID BURFEIND	83	292
ACKERMAN FARMS	58	110		BOB AND BARB PETIT	84	55
LIESER DAIRY	59	85		LINDAHL FARMS	84	119
*CORY SALZL	59	4		CHUCKKLAPHAKE JARRETTBORG	85	109
J & K FARMS	59	56		*ALAN OVERLAND	85	24
CRAZY DAISY DAIRY	60	111		DICKE FAMILY	86	171
LEISEN FARMS INC.	60	73		KUECHLE DAIRY	87	235
*STEVE MARTIN	60	65		GROOTERS DAIRY	87	51
*DAVID SMITH	61	24		*PETER SEITZER	87	68
CRONK DAIRY	61	35		*TED & DEB HALBAKKEN	87	95
LITTLE MINK CREEK DAIRY	65	41		HAPPKE HOLSTEIN FARM	88	107
*MATT BERKTOLD	65	175		*JEFF & TINA VINKEMEIER	88	142
*MIKE HERZING	65	32		SUNSHINE DAIRY LLP	88	94
THOENY FARMS	65	197		*RICK & PETER HEUER	89	78
SMELTER DAIRY	67	62		*LYLE AND WANDA HONEBRINK	89	107
*MAYNARD & JEREMY SCHUMACHER	68	103		*LARRY & SHARON WISTE	90	27
OREN AND JULIE OLSEN	68	80		ROHE DAIRY LLC.	90	298
DEER BROOK FARM	69	376		KIEFLAND HOLSTEINS LLC	90	339
ZUMBRO VIEW FARMS LLC	69	63		*GARY LEHNERTZ	90	181
*MARVIN RADEMACHER	69	59		*TIMOTHY A. STOLTMAN	90	61
*GARY LIESER	69	52		CHRISTY ENTERPRISES	91	102
*JOSH & NICOLE MILLER	70	71		JOPPS CENTURY FARMS	91	106
*ART AND JANE STUMPF	70	51		*BRIAN LIBBESMEIER	91	62
*KELLY AND KURTIS RONNINGEN	70	96		*JERRY & BEV POHLMANN	92	71
LUX-URY HOLSTEINS INC.	71	141		DENNIS PRIMUS	92	58
GUNDERSON BROS	72	66		HOLLERMANN DAIRY	92	389