

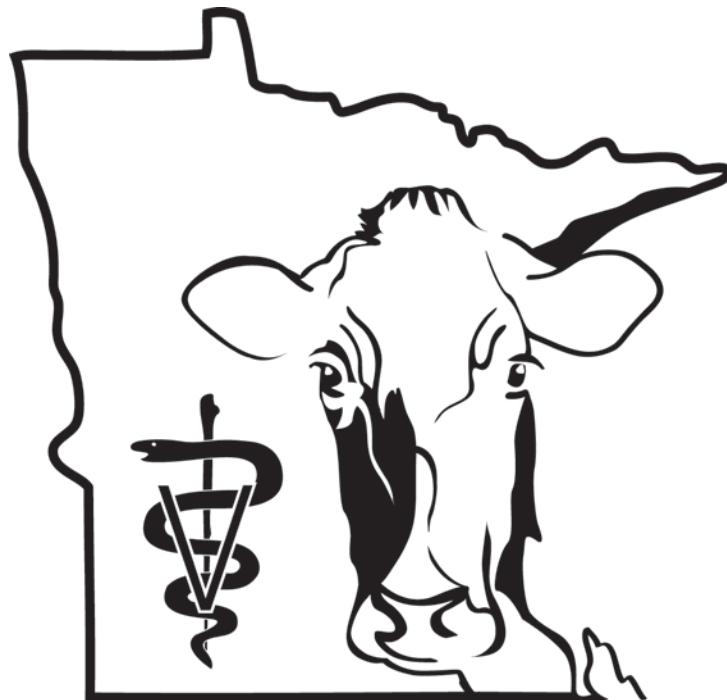
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UNIVERSITY OF MINNESOTA

College of Veterinary Medicine

VETERINARY CONTINUING EDUCATION



ST. PAUL, MINNESOTA
UNITED STATES OF MINNESOTA

**Regulatory Perspective of Milk Residue Problems
and Potential Sources**

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MINNESOTA DRUG RESIDUE REPORT FOR 1992/1993/1994/1995/1996

MONTH	1992		1993		1994		1995		1996	
	LOAD	POUNDS	LOAD	POUNDS	LOAD	POUNDS	LOAD	POUNDS	LOAD	POUNDS
JANUARY	19	559,843	14	421,657	19	252,538	40	1,131,103	28	900,834
FEBRUARY	20	559,734	11	339,031	23	394,127	20	547,882	32	889,082
MARCH	16	456,887	14	387,489	29	418,785	27	668,984	16	503,452
APRIL	13	288,129	18	485,018	20	466,127	33	618,589	24	763,507
MAY	8	249,979	16	438,747	15	468,796	35	788,834	29	840,254
JUNE	18	507,469	20	528,048	18	535,188	21	471,017	30	869,620
JULY	19	481,810	20	571,462	22	504,867	49	1,198,886	18	519,233
AUGUST	13	413,367	13	312,494	32	723,030	50	931,232	27	791,598
SEPTEMBER	18	493,209	17	422,882	32	735,266	27	430,316	27	835,755
OCTOBER	8	201,911	10	267,316	31	661,352	36	928,272	24	675,994
NOVEMBER	15	424,862	11	333,719	33	758,581	25	682,758	30	794,804
DECEMBER	15	435,746	17	497,047	27	582,299	27	561,363	19	372,196
TOTALS	182	5,072,946	181	4,994,910	301	6,500,954	390	8,959,236	331	9,055,742

MINNESOTA

DRUG RESIDUE REPORT BY MONTH FOR 1997

<u>MONTH</u>	<u>PRODUCER POUNDS</u>	<u>LOADS</u>	<u>LOAD POUNDS DUMPED</u>
January	258,575	34	803,849
February	116,555	25	711,516
March	94,142	19	516,379
TOTAL	469,272	78	2,031,744

Totals as of 04/09/97

DEALING WITH DRUG RESIDUES IN MILK

CAUSES

Over 80% of the contaminated loads are from sources other than the "known" treated cow.

Most common cause is milking a dry treated cow within 2 weeks after treatment.

Another cause is cows which freshen early (sooner than 60 days after treatment).

The remainder are accidents which allow a treated lactating cows milk to get into the tank.

TESTING TREATED COWS

Milk the cow out into a bucket so the sample represents all her milk.

Use a test designed for an *individual animal*.

If you use a bulk tank test kit it maybe helpful to do the following:

- (a) Prepare 2 samples for testing, one straight and one diluted.
- (b) Make the diluted one by mixing 5 parts from the bulk tank to 1 part from the cow sample.
- (c) Test both, if they are both positive do not use the milk.
- (d) If the diluted sample is negative that cows milk will not cause a tank to be positive.

Caution, This is only for testing individual cows milk and it is essential that the test used is sensitive to the drug treatment used.

September 5, 1996

ATTACHMENT TO M-a-85 REVISION #5

MILK DRUG RESIDUE SCREENING TEST DETECTION CONCENTRATIONS¹

BETA-LACTAMS

DRUG	AMOXICILLIN	AMPICILLIN	CEFTIOFUR	CEPHAPIRIN	CLOXACILLIN	PENICILLIN
Tolerance or Safe Level	10PPB	10PPB	50PPB ²	20ppb	10ppb	5ppb
Screening Test						
CHARM B. <i>stearothermophilus</i> TABLET DISK ASSAY	7.5	6.7	75 ³	11.7	48 ³	3.8
CHARM II TABLET BETA-LACTAM TEST (COMPETITIVE ASSAY)	7.5	5.7	7.1	4.2	70 ³	3.0
CHARM II TABLET BETA-LACTAM TEST (SEQUENTIAL ASSAY)	8.1	6.6	11.3	4.1	50 ³	3.4
CHARM II TABLET BETA-LACTAM TEST (QUANTITATIVE ASSAY) ⁴	8.1	6.6	11.3	4.1	8.5	3.4
CHARM II TABLET TRANSIT BETA-LACTAM TEST ⁴	7.5	5.7	7.1	4.2	50 ³	3.0
CHARM I COWSIDE II TABLET BETA-LACTAM TEST	9.6	10.0	16.0	5.8	50 ³	4.5
CHARM I COWSIDE II TEST FOR CLOXACILLIN IN MILK (COMPETITIVE ASSAY) ⁵	ND ⁶	ND ⁶	ND ⁶	ND ⁶	9.7	ND ⁶
CHARM II TEST FOR CLOXACILLIN IN MILK (COMPETITIVE ASSAY) ⁵	ND ⁶	ND ⁶	ND ⁶	ND ⁶	8.5	ND ⁶
DEL VOTEST P 5 PACK	4.6	4.0	NA ⁹	8.2	NA ⁹	2.1
DEL VOTEST P DEL VOTEST P MINI	7.7	5.1	>50	7.0	30 ³	3.1
DEL VOTEST SP DEL VOTEST SP MINI	6.0	7.9	>50	7.7	33 ³	2.7
DEL VO-X-PRESS BETA-LACTAM RESIDUE TEST KIT	9.2	7.0	11.5	4.1	50 ³	4.7
LACTEK B-I BETA-LACTAM RESIDUE TEST KIT	7.1	4.7	ND ⁶	18.7	7.7	4.1
LACTEK CEF BETA-LACTAM MILK SCREENING KIT ⁸	ND ⁶	ND ⁶	44.2	ND ⁶	ND ⁶	ND ⁶
SNAP BETA LACTAM TEST KIT (READER)	10.5 ⁹	8.2	10.5	3.5	50 ³	3.5
SNAP BETA LACTAM TEST KIT (VISUAL)	10.2 ⁹	8.2	9.6	3.0	50 ³	3.4
PENZYME MILK TEST	6.0	7.7	80 ³	11.6	80 ³	5.0
PENZYME III TEST PROCEDURE	5.3	5.6	NA ⁹	14.3	NA ⁹	4.3

REMEDIES

Make sure dry treated cows are well marked and removed from the milking herd.

Fresh cows milk should be tested before it is put in the tank.(check date of last treatment)

Properly identify all treated lactating cows.

Keep detailed records and communicate all treatments to milkers.

Milk treated cows last.

Wash equipment, rinsing may not remove the residue

Keep Good Records

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