

Testing Milk on the Farm

On farm testing of the bulk tank is one of the best ways to ensure adulterated milk does not leave your farm. While any information obtained from on-farm testing can be helpful in avoiding residues, it is important to understand how tests differ and which test(s) your processor is using to maximize the effectiveness of this tool.

What should you know about on-farm testing?

- This is one of the best preventive measures you can take to ensure adulterated milk does not leave your farm because you can verify that your milk is negative before it leaves.
- The tests are easy to set up and run.
- Test kits may be provided at a discount through your processor. Contact your dairy field service representative to find out what tests are available to you and at what price. If they are not available through your processor, you can contact the manufacturer directly.
- Test kits vary in their cost, length of time to run and which drugs they detect, and how low they can detect the drug.
- It is unlikely that you can test for every drug you would possibly use with an on-farm bulk tank test; it is important to have other measures in place to avoid residues in addition to testing.

Which test should you use?

The best answer to this question is **any test that you will use and that works logistically for you**. Some testing is better than no testing and limitations on timing and availability may limit your choices. Make sure to contact your processor prior to choosing a test to determine **which test kit your processor uses** so you can use the same one if possible, and to determine if any discounts are offered through them. By using the same test, you maximize your ability to detect the same drug residues, at the same levels, that your processor is detecting. Table 1 provides additional details about the available test kits, their approximate cost and how to get the test kits if need additional contact information. Table 2 provides a listing of each test, which drug it detects and its safe tolerance and detection levels.

Table 1. Widely available on-farm screening test kits.

Test	Test run time	Cost to you**	How to order
Charm[®] SL	8 minutes	\$76.00/20 tests \$342.00/100 tests \$373.00 for incubator (one time cost)	Contact 1-800-343-2170 to be put in touch with your local representative
Charm[®] SL3	3 minutes	\$77.00/20 tests \$338.00/100 tests \$373.00 for incubator (one time cost)	Contact 1-800-343-2170 to be put in touch with your local representative
Delvotest P Mini	2-3 hours	\$40.75/25 tests \$141.22 for the Delvotest block heater (one time cost)	Call DSM (North America Distributor): 1-800-826-8302
New SNAP[®] Beta Lactam Test Kit	5 minutes to heat 4 minutes to read	Pack options: \$66.00/20 tests \$294.00/100 tests \$250 for heater block (one time cost) \$320 Dairy Starter Kit (time, heater, 40 tests 20 beta lactam, 20 tetracycline)	Call 1-800-321-0207 and ask to be put in touch with your local representative

**These are list prices and they are subject to change. Make sure to contact the appropriate party to ask about current prices and discounts.

Last Updated: 1/6/2020

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Table 2. Milk Drug Residue Screening Test Detection Levels for the Beta Lactam Group

DRUG	AMOXICILLIN	AMPICILLIN	CEFTIOFUR	CEPHAPIRIN	CLOXACILLIN	PENICILLIN
TOLERANCE OR SAFE LEVEL	10 ppb	10 ppb	100 ppb	20 ppb	10 ppb	5 ppb
SCREENING TEST						
CHARM® II TABLET BETA LACTAM TEST (COMPETITIVE ASSAY)	7.5	5.7	47	4.2	70	3.0
CHARM® SL BETA LACTAM TEST	5.6	8.5	77	13.7	50	3.6
CHARM® 3 SL3 BETA LACTAM TEST	8.4	8.0	79	20.0	8.6	3.8
*DELVOTEST P 5 PACK (READER)	4.6	4.0	ND	8.2	NA	2.1
*DELVOTEST P 5 PACK (VISUAL)	4.6	4.0	ND	8.2	NA	2.1
*DELVOTEST P MINI	7.7	5.1	NA	7.0	30	3.1
NEW SNAP® BETA LACTAM TEST KIT	7.3	5.8	12	11.7	50	3.0

*Delvo tests are not specific for Beta-lactams only. A non-Beta lactam drug residue, such as a sulfa or a tetracycline, can cause a positive test.

For more information:

The above table (Table 2) is based on information found in [FDA M-a-85, Revision #15](https://www.fda.gov/oc/ohrt/20170406163720/https://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Milk/UCM519457.pdf). Put the following link into your browser to access this document: <https://wayback.archive-it.org/7993/20170406163720/https://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/Milk/UCM519457.pdf>. This document details the list of all approved tests and their limits of detection. New tests are approved frequently and changes to requirements can occur.

For more information and the most current version of this document, please visit the following link:

<http://www.mda.state.mn.us/residue-prevention>

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