

Somatic Cell Counts: New Rules, Same Opportunities and the Cost of Clinical Mastitis

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New Rules

Since the first of the year, there has been increased attention paid to bulk tank Somatic Cell Counts (SCC). The USDA has adopted the rolling Geometric Mean SCC as a new calculation method for determining whether dairy farms meet the new certification standards required for continued export of milk products into the European Union (EU). Dairies that have failed to be certified will be notified that they will need to apply for derogation*. In the next year, the requirement does not appear to change; however, clarification of the EU Certification Program has revealed that the certification process will be a bit harder.

According to the timelines listed in the original table, a producer would be out of compliance with five consecutive rolling three-month SCC means that are greater than 400,000 before a derogation would be requested (see table 1).

**Determining Compliance Eligibility for European Union Export Certification
Effective January 1, 2012**

Month	Monthly data for rolling three-month mean for SCC	If result of rolling three-month mean for SCC	Actions
April 2012	Jan. Feb. Mar	>400,000	Milk ok for export in April. Notify AMS.
May	Feb. Mar. Apr	>400,000	Milk ok for export in May. (1st month)
June	Mar. Apr. May	>400,000	Milk ok for export in June. (2nd month)
July	Apr. May Jun	>400,000	Milk ok for export in July. (3rd month)
August	May Jun. Jul	>400,000	Milk NOT ok for export in August. Milk supplier must suspend, segregate, discontinue certification or request derogation from AMS to be eligible.

AMS requires the milk supplier to request a derogation or exclude the milk from EU certification when they receive the July numbers in early August. AMS will accept derogations and apply them retroactively if the plant makes the request in a reasonable time frame.

Table 1: In the table above, the three-month means for April, May, June, July, and August are >400,000, with a derogation being requested in August.

The USDA has informed National Milk Producers Federation (NMPF) and US Dairy Export Council (USDEC) that the actual requirement of the EU Health Certification Program is for a derogation to be requested after four consecutive rolling three-month SCC means are greater than 400,000 (per the example above, if the rolling three-month means for April, May, June, and July are >400,000, a derogation would be requested in July or the milk would not be acceptable for export in July).

Therefore, when revised, the table will appear as below (see table 2):

Month	Monthly data for rolling three-month mean for SCC	If result of rolling three-month mean for SCC	Actions
April	Jan. Feb. Mar	>400,000	Milk ok for export in April. Notify AMS.
May	Feb. Mar. Apr	>400,000	Milk ok for export in May. (1st month)
June	Mar. Apr. May	>400,000	Milk ok for export in June. (2nd month)
July	Apr. May Jun	>400,000	Milk NOT ok for export in July. (3rd month) Milk supplier must suspend, segregate, discontinue certification or request derogation from AMS to be eligible.

Table 2: In the table above, the three-month means for April, May, June, and July are >400,000, with a derogation being requested in July.

AMS requires the milk supplier to request a derogation or exclude the milk from EU certification when they receive the June numbers in early July. AMS will accept derogations and apply them retroactively if the plant makes the request in a reasonable time frame.

The USDA has agreed to allow industry to continue to follow the timeline as it is currently illustrated in the original table (table 1) for one year, with the expectation that the dairy industry would then follow the corrected protocol by July 2013. The USDA will issue formal guidance to dairy industry correcting this information in January 2013. This formal guidance will also describe in greater detail the expectations and protocols for renewing derogations for producers with rolling three-month SCC means that continue to be greater than 400,000.

Opportunities

We can reflect on the past nine months as a warm up to meeting the corrected EU Certification standards. Meeting SCC standards of 400,000 or less offers many opportunities such as premiums for higher quality milk, reduction in milk discarded due to mastitis and antibiotic use, and decreased production losses associated with higher SCC. Others benefits include decreases in culling or death (often hidden as secondary reasons for culling an animal) associated with clinical mastitis outbreaks. Early lactation mastitis can have a negative effect on reproductive efficiency as mastitis near breeding often leads to a breeding failure. Thus, the opportunity exists to improve breeding success and maintain genetic gains as fewer animals are culled due to mastitis.

Costs of Clinical Mastitis

Many costs are associated with each case of clinical mastitis. But how do we determine these costs? Calculating these costs may be performed with some simple math and some rough estimates of input values, as most dairies do not maintain detailed records to be totally accurate. Most estimates will include the following and possibly others:

1. Cost of the drugs used during treatment (antibiotics, supportive therapy, oxytocin)
2. Cost of waste milk (average production # x days x milk price)
3. Labor and professional services (cultures, veterinary, farm labor, special handling)
4. Carry-over cost due to less milk produced in a lactation or lifetime (lost quarter, scarring)

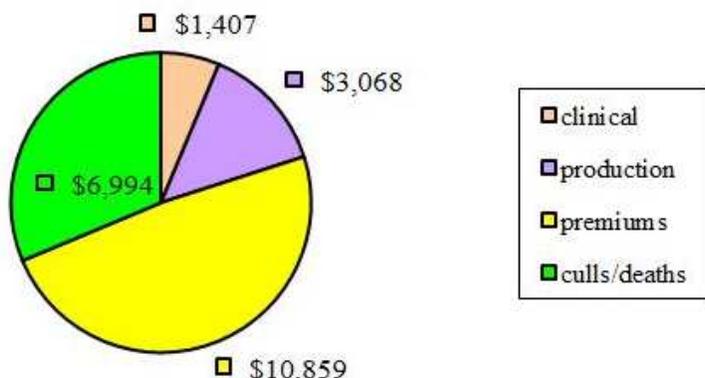
Characteristics of a clinical case of mastitis	
cool clinical	hot clinical
90%	10% proportion of all clinical cases
\$6.00	\$35.00 cost for drugs, etc. to treat the case
2	4 days of treatment
4	5 days of withholding after last treatment
53	35 average milk per day in the acute phase of mastitis
6	14 days to return to near-normal production
\$ -	\$ - value of milk/cwt for discard (allows adjustment for calf feeding)
420	630 lbs milk discarded for drug withdrawal
-	175 lbs milk lost after discard and until return to normal
420	805 total milk production loss in clinical phases
2%	4% percent of average 305-day production
\$57	\$109 value of milk production loss
1.0	4.0 hours of labor in treatment, segregation, care, milking
\$13.00	\$52.00 labor costs
\$ -	\$25.00 other veterinary, culture, etc. expenses per case
\$76	\$221 direct costs per case
\$90	cost of an "average" case of clinical mastitis

There are several programs that will help producers identify clinical mastitis costs in their herds. One such example is used in the 400K Beat It! 200K Get It! Program initiated by Quality Milk Production Services (QMPS) and Dairy One. There is a tool developed by John Fetrow at the University of Minnesota that can be accessed online for such mastitis impact calculations. (<http://www.cvm.umn.edu/dairy/software/listing/home.html>)

It is part of a tool that helps look at the total estimated losses due to mastitis. Although seemingly small by comparison, we must remember the influence that clinical cases have on production, premiums, and culling.

For assistance in meeting the EU Certification requirements, taking advantage of the opportunities associated with producing high quality milk or determining the cost associated with clinical mastitis in your herd, contact Dairy One or QMPS.

Excess Losses Due to Mastitis



* Derogation

A derogation is a provision in an EU legislative measure which allows for all or part of the legal measure to be applied differently, or not at all, to individuals, groups or organizations. The option to derogate is often granted to Member States and also to the social partners. In this context, derogation is not a provision excluding application of the legal measure: it is a choice given to allow for greater flexibility in the application of the law, enabling Member States or social partners to take into account special circumstances.

For more information on EU certification program, or how Dairy One can help identify and evaluate somatic cell issue on your farm contact George Cudoc at 800-344-2697 ext. 2117 or by email: george.cudoc@dairyone.com.