

Vet's Corner: Pregnancy Hard Counts

To set a breeding goal, various pregnancy hard count formulas have been used to forecast the number of pregnant cows that the reproductive program is producing on a regular basis. Some formulas get a bit complicated and include culling rate and desired calving interval and desired growth rate of the herd. These formulas have value in forecasting internal herd growth, but have too many factors that cloud the specific goal of monitoring the number of pregnancies needed every month.

From PC Dart report 126 or Dairy Comp 305 Bredsum 21-day pregnancy report, for a herd that wishes to have 300 cows in milk, pregnancies and abortions during consecutive 21 day cycles are reported:

Date	Br Elig	Bred	Pct	Pg Elig	Preg	Pct	Aborts
11/24/08	85	58	68	81	19	23	1
12/15/08	85	44	54	79	11	14	0
01/05/09	82	58	71	81	20	25	1
Total	1370	831	61	1345	252	19	33

For the 21 day interval from Dec 15 to Jan 5, 82 cows were breeding eligible as of Dec 15, but only 81 cows completed the 21 day interval to be listed as Pregnancy eligible, because one of these cows was culled or changed breeding status to Do Not Breed in that time period. 20 pregnancies and 1 pregnancy that ended in abortion were created in this time period, so the pregnancy hard count for this 3 week interval is 21.

To maintain 300 cows in milk, it is necessary to freshen in 10 heifers and 20 cows a month. Embryonic loss in this herd is on the high normal side in cows at 12% per year (33/252) and 1% in heifers, so it is necessary to create 23 cow pregnancies (20/1.00-0.12) and 10 heifer pregnancies every month to maintain 300 milking cows without purchasing replacements.

Pregnancy hard count goal is 17 cow pregnancies for each 3 week interval (23 cow pregnancies/month x (3 week interval/ 4 weeks/ month)). This comes out to 6 per week. Since rectal palpation is done weekly on this farm, Pregnancy hard count goal is six cows a week on this 300 head farm.

For the year, 285 pregnancies (252 pregs and 33 abortions) were created. The annual pregnancy hard count goal is 276 (23 cow pregnancies/mo x 12 mo=276). So this farm is meeting its reproductive goal of creating pregnancies to maintain a fresh herd and prevent the need of purchasing replacements. If there is no internal growth in the herd, other reasons for culling or losing cows, such as mastitis and injuries should be investigated.

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