



COW SENSE CHRONICLE

APRIL 2013

CALCULATING CALVING DISTRIBUTION TO EVALUATE REPRODUCTIVE PERFORMANCE

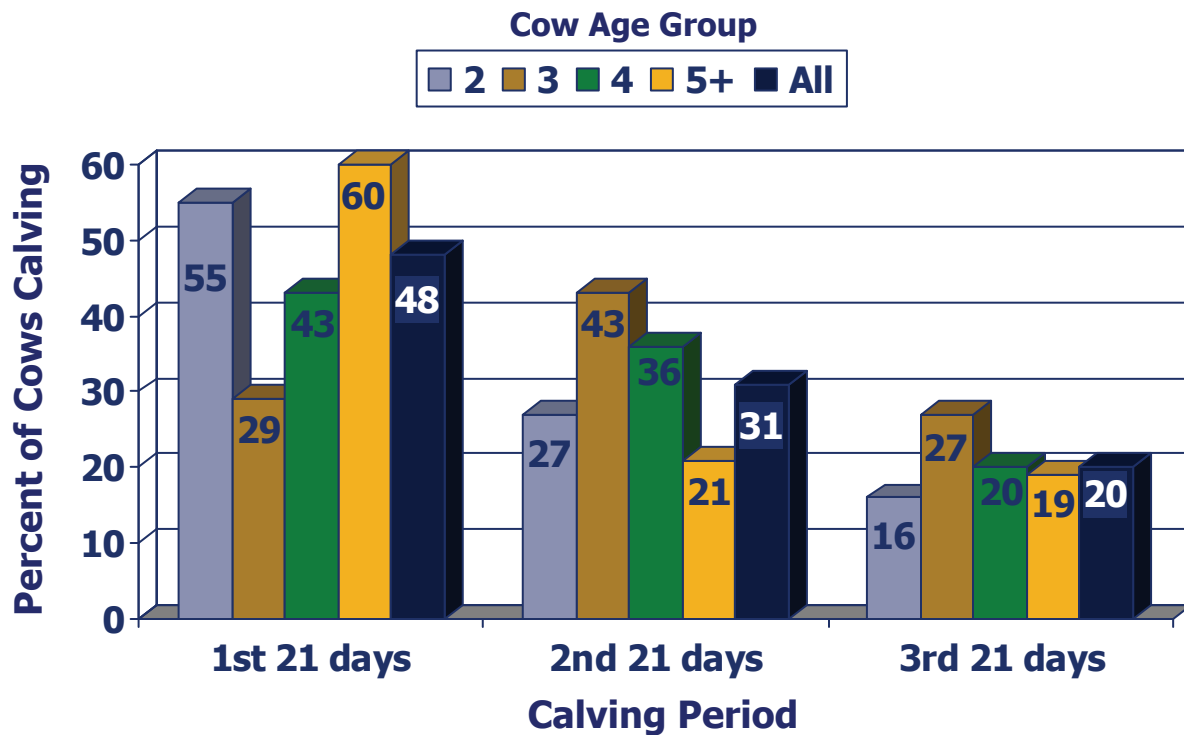
Calculating calving distribution is one way to evaluate the previous year's reproductive performance of the cowherd. Calving distribution follows how cows are calving during the calving season, split into 21-day periods (the length of a cow's estrous cycle). The starting date of the calving distribution can be determined in a couple different ways. The first is to add 283 days (average gestation length) to the breeding date or bull turnout date, and the second is to assign the starting date as the day when the third mature cow calves.

In herds where cow age can be identified along with calving date, calving distribution can be calculated for young cows separately from older cows, which may provide information about breed-up performance that might not otherwise be easily observed. Here is an example calving distribution from the Beef Improvement Federation Guidelines publication.

Cow Age	Number of Cows	Percent of Cows Calving		
		Days 1-21	Days 22-42	Days 43-63
2	79	55	27	16
3	62	28	43	27
4	44	43	36	20
5+	70	60	21	19
Total	225	48	31	20

What is a good benchmark number for calving distribution? One example comes from the North Dakota Beef Cattle Improvement Association Cow Herd Appraisal Performance Software (CHAPS) program. The CHAPS benchmark for the first 21-day calving period is 63.4%. The benchmarks for 42 and 63 days are 88.8% and 95.6%, respectively.

From this chart, do you see a group of cows you might be more concerned with compared to another? Perhaps the 3-year-olds? Check out the graph of this data on page 2 for a visual perspective.



In this format, the 3-year-old cows really jump out. All other age groups have the largest percentage of cows calving during the first 21 days, but the largest percentage of 3-year-olds calved during the second 21 days. Many beef cattle producers find that getting first-calf heifers to breed back well is a challenge. Some strategies to improve young cow reproductive performance include implementing proper heifer development and pre- and post-calving nutrition programs.

Some producers start the yearling breeding season 2-3 weeks ahead of the mature cows in an effort to give the heifers more time to recover before breeding season. On the other hand, some producers implement a shortened (say, 30-day) breeding season for yearling heifers in an effort to put selection pressure on reproduction. In this scenario, pregnancy rates will be lower than in a longer breeding season, so more potential replacement heifers may need to be kept back to ensure an appropriate replacement rate for the cowherd.

Keeping young cows separate from older cows before and after calving (if conditions allow) might also be a good young cow reproductive management strategy. Since young cows are still growing, their nutrient demands are higher than mature cows. Managing them separately allows for more targeted feeding to meet nutrient requirements. When managed together, feeding to meet mature cow requirements will result in a nutrient shortage for the young cows, while feeding to meet young cow requirements will result in overfeeding the mature cows, which could be a fairly expensive proposition.

Have you started planning for the 2013 breeding season? An evaluation of calving distribution might give you some good insight on how last year's management environment impacted cowherd reproductive performance.

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Sun	Mon	Tue	Wed	Thu	Fri	Sat
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>
		Montana Nutrition Conference and Livestock Forum, GranTree Inn Bozeman				
<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>20</i>
<i>21</i>	<i>22</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>
<i>28</i>	<i>29</i>	<i>30</i>				