



## DAIRY FARM MANAGEMENT BASICS

A Farm Management Course by  
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### Pregnancy Success - Article 24

The last article focused on setting reproductive goals and calving intervals. Setting goals is easy, but accomplishing them can be a challenge, because "things" don't always go as planned.

In Table 1, examples 1 and 2 compare what happens when there is a problem with heat detection and conception rates. In example 1, heat detection rate was only 53% and if only 38% of those heats resulted in a pregnancy (conception rate), the overall pregnancy success rate was only 20%. In other words, only 1/5 of the heats resulted in a pregnancy. At that rate it will take 105 days beyond the volunteer waiting until you get cows settled. That translates into 165 days open and a 15 month calving interval. Each extra day open can cost you about \$2.50. Thus, the extra 2-month delay could cost you \$140 per lactation or \$113 per cow per year. If you are aiming for a 13 month calving interval, as illustrated in example 2, you'll need to have an 80% heat detection rate and a 60% conception rate, or some combination thereof.

So, what goals do you need to set for yourself to attain the pregnancy success rate you want? Are you on track with the goals you have set? When things are not going right, what can you do to help improve the reproductive performance of your herd? Here are a few things to consider:

- Is the breeding problem nutrition related? Check the energy balance of the ration, the flesh condition of the cows, and milk urea nitrogen (MUN) levels. Cows don't conceive very well when they are in negative energy balance, when the ration is out of balance, or when urea nitrogen levels are high.
- Is the breeding problem caused by heat stress? If so, plan your breeding and calving seasons accordingly, or take measures to protect cows from heat stress.
- Is the breeding problem caused by infections and diseases? If cows have calving difficulties and retained placentas, and if maternity areas are unsanitary, the risk of uterine infections increases. Check the sanitation of the maternity area?

- Is the herd bull spreading infections?  
 Are cows carrying diseases that suppress their immune systems?  
 Were cows properly vaccinated?

Consider using hormone therapy to help flush infections out of cows' reproductive tracts and prepare them for insemination, it might be cheaper and more effective than doing rectals.

- Is the breeding problem related to heat detection, semen handling, and inseminating techniques?  
 Consider programmed breeding in an effort to bring groups of cows into heat at one time. It creates more sexual activity, concentrates heat detection time, and makes heats easier to detect. Cows are most active between 6 p.m. and 6 a.m. Watch cows for heat twice a day, between these hours, when they are not preoccupied with other activities such as eating.  
 Consider using heat detection aids, such as marking the rumps with crayon, using pressure pad sensors on the rumps, motion detectors, etc.  
 Check timing of insemination and inseminating techniques.  
 Discuss these concerns with your veterinarian and your AI technician.

Table 1 Pregnancy Success Rates and Calving Intervals

|  | Examples |        | Yours   |
|--|----------|--------|---------|
|  | No. 1    | No. 2  |         |
| % heats detected (decimal)   | 0.53     | 0.80   | _____   |
| % services that conceived (decimal)  | x 0.38   | x 0.60 | x _____ |
| Pregnancy success % (expressed as a decimal)                                       | 0.20     | 0.48   | _____   |
| No. heat periods needed per conception<br>(1.0 - the breeding success rate, above) | 5        | 2      | _____   |
| Days per heat period   | x 21     | x 21   | x _____ |
| Days needed beyond VWP <sup>1</sup> to conceive                                    | 105      | 42     | _____   |
| Volunteer waiting period (days)  | + 60     | + 60   | + _____ |
| Days open  | 165      | 102    | _____   |
| Gestation period   | + 281    | + 281  | + _____ |
| Calving interval - days  | 446      | 383    | _____   |
| Goal - days (mo x 30 days)   | - 390    | - 390  | = _____ |
| Extra days open  | 56       | 0      | _____   |
| Calving interval - months (days - 30)  | 14.9     | 12.8   | _____   |
| Gcal - months  | 13.0     | 13.0   | _____   |
| Extra days open  | 56       | 0      | _____   |
| Cost per extra day open (\$)   | x 2.50   | x 2.50 | x _____ |
| Cost per cow - per lactation   | 140      | 0      | _____   |
| - per year <sup>2</sup>  | 113      | 0      | _____   |

Foot notes:  
 1 VWP = volunteer waiting period (days to wait after calving before breeding)  
 2 Cost per year = cost per lactation x 12 mo - actual calving interval in mo

# BARENBRUG Forages For Profit

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## Baralfa 54

Baralfa 54 is a variety selected for exceptional yield and excellent disease resistance. It is a vigorous high yielding variety with very fast regrowth after cutting. Baralfa 54 displays above average leafiness and is very persistent. It has had yields as high as 10.71 tons per acre.

**Dormancy of 5, Winterhardiness of 4 means more 5th Cuttings**

Table 8. 1995 alfalfa variety trial—Landisville

| Variety        | 1997 Yield | 1996 Yield | 1996-97 Average | Stand 10/21/97 |
|----------------|------------|------------|-----------------|----------------|
| BARALFA 54     | 8.07       | 7.88 (1)   | 7.98 (1)        | 73.8           |
| 5454           | 7.90       | 7.60 (2)   | 7.75 (2)        | 75.4           |
| DK127          | 7.61       | 7.43 (3)   | 7.52 (3)        | 72.8           |
| WL 324         | 7.58       | 7.08 (7)   | 7.33 (5)        | 73.1           |
| ABT 405        | 7.58       | 6.91 (13)  | 7.25 (6)        | 73.7           |
| MARINER        | 7.50       | 7.38 (4)   | 7.44 (4)        | 73.2           |
| INNOVATOR +Z   | 7.43       | 6.76 (20)  | 7.10 (9)        | 73.1           |
| TMF GENERATOR  | 7.34       | 7.13 (5)   | 7.24 (7)        | 73.2           |
| 5312           | 7.29       | 6.89 (15)  | 7.09 (11)       | 73.9           |
| MAGNUM IV      | 7.27       | 6.93 (12)  | 7.10 (10)       | 68.9           |
| DOMINATOR      | 7.22       | 6.67 (22)  | 6.95 (15)       | 73.2           |
| DEMAND         | 7.21       | 6.65 (23)  | 6.93 (16)       | 73.8           |
| WL 323         | 7.16       | 7.05 (8)   | 7.11 (8)        | 70.8           |
| PREFERRED      | 7.07       | 6.97 (11)  | 7.02 (13)       | 71.0           |
| SUPERCUTS      | 7.04       | 6.76 (21)  | 6.90 (18)       | 70.6           |
| ONIEDA VR      | 7.02       | 7.00 (9)   | 7.01 (14)       | 70.7           |
| MULTIQUEEN     | 7.01       | 7.10 (6)   | 7.06 (12)       | 67.6           |
| PRISM 2        | 6.93       | 6.84 (18)  | 6.89 (20)       | 72.1           |
| EXCALIBUR II   | 6.91       | 6.86 (17)  | 6.89 (19)       | 67.4           |
| WL 332 SR      | 6.88       | 6.88 (16)  | 6.88 (21)       | 72.2           |
| AFFINITY +Z    | 6.87       | 6.52 (27)  | 6.70 (24)       | 72.3           |
| DIVIDEND       | 6.82       | 6.98 (10)  | 6.90 (17)       | 68.3           |
| WL 252 HQ      | 6.82       | 6.81 (19)  | 6.82 (23)       | 70.3           |
| ALFASTAR       | 6.76       | 6.58 (25)  | 6.67 (25)       | 69.6           |
| HAYGRAZER      | 6.75       | 6.89 (14)  | 6.82 (22)       | 71.3           |
| SARANAC AR     | 6.71       | 6.61 (24)  | 6.66 (26)       | 69.7           |
| MAGNUM III-WET | 6.51       | 6.54 (26)  | 6.53 (27)       | 73.4           |
| GRAND MEAN     | 7.15       | 6.95       | 7.05            | 70.8           |
| LSD (p=.05)    | 0.52       | 0.42       | 0.42            | 3.9            |
| CV(%)          | 5.19       | 4.35       | 4.23            | 4.0            |

CV = Coefficient of variation  
 LSD = Least significant difference  
 • Seeded April 20, 1995  
 • Yields (tons per acre at 12% moisture)  
 • Yields indicated represent the sum of four cuttings each year  
 • Stand score based on a scale from 1 to 100. A 100 is considered to be a perfect stand.  
 • Grand Mean, CV, and LSD values represent 64 total entries.  
 • Varieties are listed by rank for 1997 yield. Numbers in parentheses indicate rank within the listed data (see column headings).

For ninety years BARENBRUG has excelled worldwide in plant breeding and seed production, constructing breeding stations and test plots throughout widely varied climatic zones. Our expertise will provide you with scientifically adapted forage grasses perfectly suited to any location.

## Baralfa 32 IQ Top Milk Yields Per Acre In Wis.

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### Baridana Orchardgrass.

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### Baraula Orchardgrass.

Extremely late maturity. Much better digestibility than Pennlate.

### B.G. 34 Ryegrass.

A blend of 3 late maturing Perennial Ryegrasses for grazing. "If we had to do it over again, we would plant at least 60 percent of our farm in BG-34 with Alice White Clover."

Russ King

Out of 6 Ryegrass varieties B.G. 34 had the least seedheads.

### Matua Bromegrass.

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