



Fort Keogh Livestock & Range Research Laboratory and
Corona Range and Livestock Research Center, New Mexico State University

WHEN ARE COWS SUPPLEMENTED?

MANAGEMENT GOALS:

- Calf weaning rate has the greatest impact on profitability
 - 95% fall pregnancy rate
 - 80% cows calving within 30 days
 - Spend no more than \$50 per cow purchased feed

OUR DECISION PROCESS

First – Determine quantity of available forage versus the expected number of cattle and time (conservative grazing).

Can a cow eat all she wants every day?

Second – What is the grazeable forage quality?

Is green vegetation available?

Green = higher protein

Brown = lower protein

Third – What are the cow's requirements?

Production stage; dry, pregnant, lactating, body condition?

Also age, climatic, activity stressors

Sort most nutritionally stressed cows

WHAT TO SUPPLEMENT?

Characteristics of Strategic Low Cost Supplementation

Lower labor

Biologically potent supplemental nutrients

Improves animal productivity

Base of Strategic Low Cost Supplementation is;

1. Adequate forage
2. Mineral nutrition; self-fed mineral available year round (\$0.025 /d for 365 d@\$750/ton)
3. Diet – if it is brown/dormant then it is less than 7% CP - expected responses to protein supplement increase digestibility & intake

DEVELOPING STRATEGY - PROTEIN

HOW MUCH PROTEIN TO FEED?

5 quantities NM-strategic low cost supplementation

Minute – .2 lb/d (self fed)

Minimum – .5 lb/d (fed 1 time/wk at 3.5 lb/ hd)

Moderate – 1 lb/d (fed 2 to 3 times/wk)

Maximum – 2 lb/d (fed 2 to 3 times/wk)

Super Maximum – 2 lb/d (fed 2 to 3 times/wk)

MINUTE

50% NMSU CORONA RANCH Range Mineral

50% 2 bypass proteins (fish & feather meal mixed

50:50 or 100% fish meal) high bypass protein sources

Self fed, target .2 lb per day (\$0.05 to \$0.08 per head/d) Low labor, feed with low nutritional stress, very efficient

MINIMUM

36% crude protein (CP) supplement (cottonseed base)

65% rumen degradable

6% to 10% CP equivalents from urea, higher to lower costs

Hand fed, (cubes) target .5 lb/head per day (\$0.06-0.10/d) fed

at 3.5 lb/head 1X per week

Lower labor, feed with low nutritional stress, efficient

MODERATE

36% crude protein (CP) supplement (cottonseed base)

65% rumen degradable, 6% CP equivalents from urea

Hand fed, (cubes) target 1 lb per day (\$0.13-0.20/d for 30 d

Fed every other day, 3X or 2X per week

Effective during; pregnancy, stressful climatic conditions

MAXIMUM

36% crude protein (CP) supplement

50% rumen degradable, 6% CP equivalents from urea

Hand fed(cubes/blocks) target 2 lb/d (\$0.30-0.40/d for 60 d

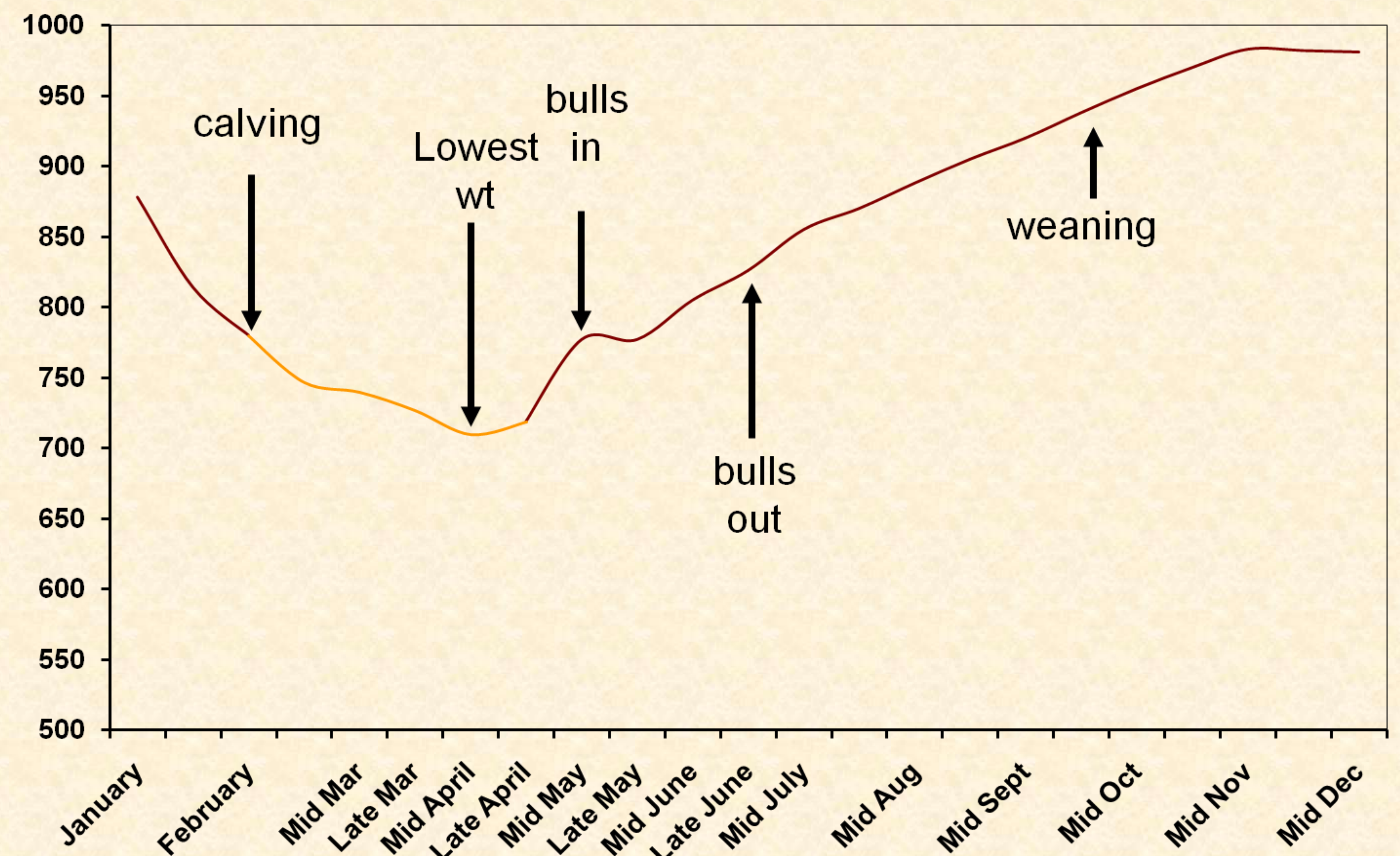
Fed every other day, 3X or 2X/wk

Most effective during body weight loss (lactation, late pregnancy or environmental stress)

SUP MAX

Or Super Max for 2-3 year old cows add 40g calcium propionate per head per day (adds \$200 / ton)

Typical Body Weight Change in 2 & 3 Year Old Cows and Supplementation Program



minute																			
mini																			
moderate																			
maximum																			
mineral																			

Strategic supplementation scheme; solid bars signify regular supplementation (\$28.30/yr) practices, dashed bars represent optional schemes depending on cows & grass

SUMMARY

- Maintain forage and animal balance
- Ground nutritional management with effective mineral program

TAKE HOME MESSAGE:

- Strategic supplementation is designed to improve cow nutritional status.
- Based on a timely approach.
- Using the most biologically effective form of supplement.
- Purpose is to be efficient, supplement cows with exactly what is needed, achieve production goals while minimizing feed costs.