Beef Cow Herd Management Calendar
Michigan State University
Cooperative Extension Service
Michigan Beef Production
Harlan Ritchie, Department of Animal Science
May 1991
6 pages

MICHIGAN BEEF PRODUCTION

COOPERATIVE EXTENSION SERVICE
MICHIGAN STATE UNIVERSITY

EXTENSION BULLETIN E-2298
MAY 1991 (NEW)

Beef Cow Herd Management Calendar

Harlan Ritchie
Department of Animal Science

This fact sheet is an outline of suggested management practices to follow at various stages of the beef herd's annual production cycle. Detailed information on these practices is given in other fact sheets.

This "calendar" is based on a spring calving schedule. Most of the management suggestions are also applicable to a fall calving program. Not all of the practices outlined here will fit everyone's management program. Alter them as necessary to fit your needs.

JANUARY
(July if fall calving)

1. If forage quality is low, consider having a sample analyzed to determine possible supplement needs. Energy, protein, phosphorus, selenium and Vitamin A are nutrients most likely to be deficient.

2. Corn or corn silage is normally the cheapest supplemental energy source in many areas. Use this formula to compare energy sources on basis of cost per lb of total digestible nutrients (TDN): (Cost, $/ton) ÷ (2,000 x dry matter ÷ % TDN in dry matter) = Cost per lb of TDN.

3. If supplemental protein is required, beware of needless overspending on exotic commerical mixes. Use this formula to compare supplemental proteins on the basis of cost per lb of crude protein (CP): (Cost of supplement, $/cwt) ÷ (100 x CP%) = Cost per lb of CP.

4. Supplemental mineral needs vary from region to region depending on soils and vegetation. A general purpose mix that has proven useful for wintering cow herds is: 45 percent dicalcium phosphate; 20 percent selenium 200 premix (supplies 40 ppm Se); 35 percent trace mineral salt. In areas where magnesium, copper, zinc, cobalt or manganese are extremely deficient, you will need to increase the levels of these elements.

5. Vitamin A may be fed in a supplement or injected. Injections last 90 to 100 days. Injected dosage should be 2 to 3 million IU per cow.

6. Be sure the herd has an adequate water supply. Depending on body size and stage of production, cattle need 5 to 11 gallons per head per day, even in the coldest weather.

7. Provide some protection, such as a windbreak, during severe winter weather to reduce energy requirements. A woodlot is ideal.

FEBRUARY
(August if fall calving)

1. Below-zero weather and wind can increase energy requirements 20 to 40 percent. Increase feed accordingly.

2. For some herds, calving season is here. Check the following items:

a. Calving assistance equipment.
b. Facilities to warm chilled calves (heat lamps, warming box, etc.).
c. Frozen colostrum.
d. Oral calf feeder for administering fluids to stressed or dehydrated calves.
e. Electrolytes for dehydrated calves.
f. Pharmaceuticals for scours and respiratory problems.
g. 7 percent iodine for calf's navel.
h. Ear tags.
i. Selenium injections if white muscle disease is likely to be a problem.
j. Vitamin A injections if forage quality is low.
k. Dehorning and castrating materials.
l. Implants to stimulate growth of non-replacement calves.

3. To ensure early rebreeding, make certain that the lactating cow herd is on an adequate plane of nutrition. For herds on harvested feedstuffs, consider the following diets as a guide:

a. Full feed of mixed grass-legume hay (30 to 40 lb), plus grain if necessary.

b. 60 to 80 lb of corn silage plus 1 to 2 lb soy supplement or equivalent.

c. 15 to 20 lb legume hay plus 30 to 35 lb corn silage.

d. Free choice mineral mix containing 8 percent phosphorus.

MARCH
(September if fall calving)

1. March and April are heavy calving months. Be prepared.

a. Keep calving areas as clean and dry as possible.

b. Check herd frequently; be ready to assist cows not making progress after one to two hours of hard labor.

c. Give first-calf heifers extra attention.

d. Don't leave cows and calves in tight quarters for more than one or two days – this can lead to scours and respiratory problems. Calves will stay healthier outdoors as long as they have a dry place to lie down.

e. For maximum disease prevention, get colustrum into the calf as soon after calving as possible (four hours or sooner). Have frozen colostrum on hand for emergency feeding.

f. In cold weather, be prepared to provide supplemental heat for chilled, weak calves.

2. Be prepared to give fluids to scouring calves that become dehydrated. Consult your veterinarian for advice.

3. If cows calve in thin condition (condition score 4 or less), they will need to receive enough energy to be in moderate-to-good condition (condition score 5 to 7) by the start of breeding season.

4. Plan your spring fertilizer needs. On straight grass, 50 lb of nitrogen per acre can give an extra ton of dry matter. For legume-grass mixes, use potassium and phosphorus. Soil tests should determine the precise needs. Over-fertilization is neither cost-effective nor environmentally compatible.

APRIL
(October if fall calving)

1. Prepare for pasture season:

a. Check fences and make necessary repairs.

b. Beware of grass tetany; provide supplemental magnesium if necessary.

c. Plan a fly-control program.

d. Castrate and dehorn commercial calves before going to pasture.

2. Get ready for breeding season if you haven't started already:

a. If you use A.I., order semen early, check your equipment and replace lost ID tags.

b. If your semen tank is 10 years old or older, have it checked for its ability to hold nitrogen – you may need a new tank.

c. Consider a breeding soundness exam of your bulls. Nationally, 10 to 20 percent of the bulls are questionable or unsatisfactory breeders.

d. Make certain cattle handling facilities are in good working order.

e. If lactating cows are thin and have not started to cycle, feed more energy.

f. Free-choice mineral mix should contain 8 percent phosphorus, which is important for maximum fertility. If your region is known to be deficient in specific trace minerals (selenium, copper, zinc, cobalt, magnesium or iodide), make sure that your mineral mix is well-fortified with these elements.

g. If IBR, BVD, leptospirosis, vibrosis and hemophilus are problems, vaccinate cows and heifers no later than three weeks prior to breeding season.

MAY
(November if fall calving)

1. Breed heifers one heat period before cows so they have extra time to recover from calving next year.

2. Try to have bulls in good conditions (condition score 6 to 7) before turning them out with cows. Bulls should have recieved their annual booster vaccinations (IBR, BVD, PI_3, lepto-5, vibrio, hemophilus) before this time.

3. Research suggests that deworming the cow herd before going to pasture can result in significantly heavier calf weights in the fall.

4. Beware of bloat on heavy alfalfa or ladino pasture stands. Blocks with poloxalene can help prevent bloat.

5. Prepare for haying season. Have spare parts ready in advance. Extended periods of "down time" can mean the difference between a high- or low-quality hay crop.

JUNE
(December if fall calving)

1. If calves are four months old, vaccinate for clostridial diseases (blackleg, etc.) if they are a problem in your area.

2. If pinkeye is likely to be a problem, consider the following preventive and therapeutic measures.

Prevention:

a. Make sure herd has been receiving adequate Vitamin A.

b. Vaccinate against IBR virus.

c. Consider pinkeye vaccination.

d. Control face flies.

e. Clip grazed-over pastures so tall, coarse grasses do not irritate eyes.

f. Provide ample shade.

Therapy:

a. Administer an intramuscular injection of long-acting oxytetracycline (LA-200) when symptoms are first noticed.

b. Inject 1 cc antibiotic into the eyelid.

c. Shut out irritating sunlight by gluing a patch over the eye with backtag cement or by locking the animal in dark quarters.

3. If horn flies in your area have developed a resistance to pyrethroid ear tags, consider the following practices:

a. Delay application of insecticidal ear tags until flies be come an economically significant problem (100 to 200 horn flies per animal).

b. Switch from pyrethroid tags to those containing an organophosphate such as diazinon or pirimophos-methyl.

c. Remove tags in the fall; do not leave them in year-round.

4. If too many females return to heat, take a good look at (1) your bull; (2) your cows' nutrition; (3) reproductive disorders such as IBR, lepto, vibrio, trichomoniasis, hemophilus, cystic ovaries or uterine infection. Consult your veterinarian.

JULY
(January if fall calving)

1. Covering large, round hay bales with 6 mm polyethylene plastic sheets and weighting them down with twine and old tires can reduce dry matter losses 10 to 15 percent and is cost-effective.

2. If you creep feed on a free-choice basis, simply use corn-oats mixtures. Exotic ingredients are expensive and not necessary. Small-framed calves should get mostly oats so they don't get fat. Larger-framed calves can take more corn. Conversion rate is about 9 lb creep per 1 lb extra calf gain. Avoid creeping heifer calves – research has shown it may lower their future milk production.

3. Remove bulls after 90 days of breeding (preferably 60 days). Calves born after mid-May don't do well in summer heat and have lighter weaning weights. Stop breeding the cow herd by August 1 to avoid late calves.

4. Sudden deaths from clostridial microorganisms (blackleg, malignant edema, etc.) have been reported in areas that have never experieced the problem. Vaccination is very effective and inexpensive. Consult your veterinarian if you suspect a problem.

5. If it looks like pastures will run out, get ready to provide emergency feed such as leasing your neighbor's idle pasture, or planting a summer annual such as sudangrass or brassicas such as rape or turnips.

AUGUST
(February if fall calving)

1. In many areas, new forage seedings may be established in mid-to-late summer following tillage or herbicide to control weeds. Consult your local Cooperative Extension Service office for details.

2. If it looks like pasture will run out in late summer, get ready to provide emergency feeds. Start supplemental feeding *before* pastures are gone so you can extend grazing as long as possible.

3. If you are a seedstock producer who consigns spring-born bull calves to a central bull test, it is time to check entrance requirements so that all requirements are met on schedule before delivery date.

SEPTEMBER
(March if fall calving)

1. Line up supplies and pharmaceuticals for fall round-up and weaning, including the following:

a. Ear tags to replace lost identification tags.

b. Deworming products.

c. Grub and lice products.

d. Vaccines (IBR; BVD; PI_3; pasteurella; hemophilus; 7-way clostridia; BRSV; 5-strain leptospirosis; vibriosis). Note that several of the vaccines are available in combinations, requiring fewer injections.

e. Schedule brucellosis vaccinations for replacement heifer calves with your veterinarian. Keep in mind that laws on these vaccinations vary from state to state.

f. Prepare to castrate or dehorn calves that were missed earlier.

2. You can minimize calves' stress at weaning time if you perform the above practices while they are still on the cow. One month prior to weaning is near-ideal.

3. Unless your calves are already on creep feed, start putting out some grain in an area where they can begin learning to eat feed from a bunk. Again, this may help reduce stress at weaning time.

4. Prepare your facility for working cattle. If your facility is not adequate, contacting your county Extension office for corral plans, or purchase "Beef Housing and Equipment Handbook" from the Midwest Plan Service, Ames IA 50111.

5. Plan your marketing program, including private treaty, consignment sales, test stations, production sale, etc.

6. Prepare to have your calf crop weighed and analyzed through your state, regional or breed performance testing program. A good software package called "CHAPS" may be purchased through the North Dakota State University Cooperative Extension Service, College of Agriculture, Fargo, ND 58105.

OCTOBER
(April if fall calving)

1. It's fall round-up and processing time for many herds, which includes:

a. Weaning the calf crop.

b. Selecting replacement heifer calves.

c. Vaccinating retained heifer and bull calves.

d. Treating the entire herd for internal and external parasites.

e. Pregnancy-testing and culling open cows.

f. Culling problem cows and marginal producers.

2. Consult your veterinarian for a replacement heifer calf vaccination program that fits your needs. Here is one that has proven to be applicable to many operations:

a. IBR (Rednose).

b. PI_3 (Para-influenza).

c. BVD (Bovine Viral Diarrhea.

d. BRSV (Syncytial Virus).

e. 7-way clostridial.

f. Haemophilus somnus.

g. 5-strain leptospirosis.

h. Vibriosis.

i. Brucellosis.

3. Except for brucellosis, these same vaccines can be adminsitered to retained bull calves.

4. Ideally, these vaccinations should be given 1 month prior to weaning. A round of booster shots should be given at weaning or shortly thereafter. For best response, allow 21 days between initial and booster shots.

5. If you vaccinate cattle yourself, be sure you know how to handle vaccines. Modified live virus (MLV) products are easily inactivated by heat, light and contamination with alcohol, water, etc. Use them up in two to three hours.

6. Select weanling replacement heifers on EPDs, individual performance records and functional traits such as structural soundness, temperament, fleshing ability, muscle thickness, etc. To maintain herd size, you must retain approximately half the heifer crop at weaning time.

7. Fall is a good time to take soil tests and topdress hay and pasture fields with potassium and phosphorus as needed.

NOVEMBER
(May if fall calving)

1. If you have access to cornstalk fields, consider these alternatives:

a. Graze at a rate of 1 to 2 acres per cow for 60 days. You may need to supplement with protein and energy after the first 30 days.

b. Harvest dry stalks as large stacks or bales. Beware, though – if too damp (more than 40 percent moisture), they will spoil.

c. Ensile stalks that are too damp, but be sure to add enough water to bring the moisture content up to 60 percent. Chop the stalks finely for maximum compaction in the silo.

2. Wean summer calves before hard winter sets in. Unless you creep feed, they will do better on grain plus hay or silage than if left on their mothers.

3. If you keep calves to feed over the winter, aim for the following minimum levels of performance:

Replacement heifer calves:

1 to 1.5 lb/day on smaller-framed heifers; 1.5 to 1.75 lb/day on larger-framed heifers. Show heifers may need to gain even faster.

Steer calves to go to grass the following summer:

Minimum of .5 to maximum of 1.75 lb/day.

Steer calves to be finished by following spring or summer:

Maximize the rate of gain (2.5 lb/day or greater, depending on breed).

Bull calves to be fed out and sold in the spring as yearlings:

Similar to finishing steers. (Bulls will not get as fat as steers at the same level of performance.)

4. Be aware of the cut-off date for using grubicides in your region. In northern states, this is approximately November 15. This date becomes progressively earlier as you move south. If in doubt, consult your veterinarian.

DECEMBER
(June if fall calving)

1. Evaluate the condition of cows and manage accordingly:

a. Cows should condition score (CS) in the range of 5 to 7 – moderate to good condition – at calving time to consistently rebreed at the rate of 90 percent by 80 days after calving.

b. Sort out and feed thin cows (less than 5 CS) so they can achieve a CS of moderate to good by the time they calve.

2. For those herds wintering moderate-to-good CS cows on harvested feedstuffs, use the following rations as a guide:

Weaned heifer calves (to gain 1.5 lb/day):

a. Full-feed of mixed legume-grass hay (11 to 12 lb) plus 6 to 7 lb grain.

b. 40 to 50 lb corn silage plus 3/4 lb soy or equivalent.

c. 5 lb mixed legume-grass hay plus 30 to 35 lb corn silage.

Coming 2-year-old pregnant heifers, thin 3-year-olds and thin mature cows:

a. Full-feed of mixed legume-grass hay (20 to 30 lb) plus grain according to condition.

b. 45 to 55 lb corn silage plus 3/4 lb soy or equivalent.

c. 15 lb mixed legume-grass hay plus 15 to 20 lb corn silage.

Dry cows, mid-pregnancy:

a. 20 to 25 lb grass hay.

b. 10 lb mixed legume-grass hay plus 15 lb straw.

c. 40 to 45 lb corn silage plus 3/4 lb soy or equivalent.

d. 1 to 2 acres corn stalks per cow plus hay or supplement as needed.

e. Full-feed dry corn stover (16 to 20 lb) plus 10 lb mixed legume-grass hay.

Dry cows, late pregnancy (to gain 0.9 lb/day):

a. 25 to 30 lb mixed legume-grass hay.

b. 50 to 55 lb corn silage plus 3/4 lb soy or equivalent.

c. 15 lb mixed legume-grass hay plus 20 to 25 lb corn silage.

Lactating cows:

a. Full-feed of mixed legume-grass hay plus grain if necessary.

b. 60 to 80 lb corn silage plus 1 to 2 lb soy or equivalent.

c. 15 to 20 lb legume hay plus 30 to 35 lb corn silage.

Herd sires:

a. Full-feed of hay or silage plus grain according to condition.

3. For a thin cow's condition to raise by one score, she needs to gain about 80 lb during the last 90 to 100 days of pregnancy in addition to the 80 lb of fetal weight that is being gained. To accomplish this, you will need to feed some additional grain, even if it is in the form of corn silage. Here are some examples:

a. 25 lb mixed legume-grass hay plus 6 lb grain.

b. 55 to 60 lb corn silage plus 1 lb soy or equivalent.

4. Put priorities on winter forage supply:

a. Feed lowest-quality forage to mature dry cows during late fall/early winter (mid-pregnancy).

b. Feed medium-quality forage to dry cows during late pregnancy.

c. Feed highest-quality forage to young stock and to lactating cows.

5. Offer a properly balanced salt-mineral mix free-choice to all classes of breeding cattle:

a. It should contains at least 8 percent phosphorus.

b. It should contain at least .004 percent selenium (40 ppm Se) in selenium-deficient areas.

c. Copper and zinc concentrations should be at least .1 percent and .4 percent, respectively.

Issued in furtherance of Cooperative Extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Michael J. Tate, interim director, Cooperative Extension Service. Michigan State University, E. Lansing, MI 48824.

New 5:91 2.5M-KDP-SP, Price 50 cents, for sale only. FILE: 19.12 (Beef-Commercial)