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University of Minnesota

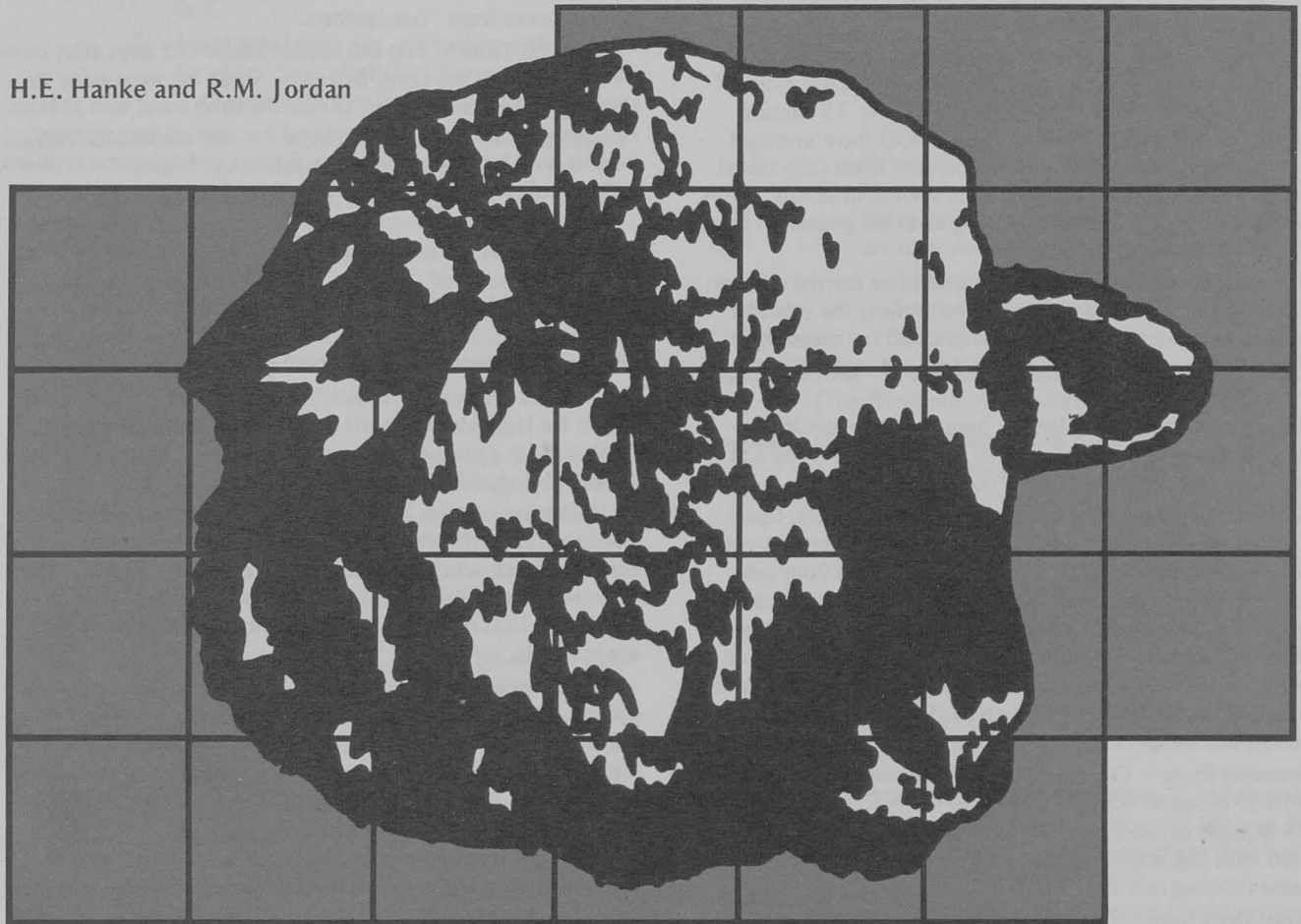
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SHEEP FLOCK CALENDAR OF MANAGEMENT DECISIONS

August

S M T W T F S

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Sheep Flock Calendar of Management Decisions

A sheep production management schedule or calendar with specific dates for your own management scheme is a useful tool. Management practices used with the sheep flock at the University of Minnesota West Central Experiment Station, Morris, are "done by the calendar" to ensure performing essential practices at the proper times.

This flock calendar and a simple ewe index have contributed significantly to the development of a productive flock of ewes. During a 25 year span—1956-1980—the 75 mature Columbia ewes (average number maintained) have averaged 13.1 pounds of grease wool and 155 percent lamb crop raised based on ewes exposed. Lactating ewes are fed in drylot, lambs are full-fed in drylot, and nonlactating ewes are grazed on pasture.

The dates when specific practices should be carried out are determined by the *lambling date desired*. Adjust the calendar to your lambling dates. This calendar is dated for breeding in mid-September with the first lambs dropped approximately mid-February.

Before presenting the calendar, here are some specific recommendations on essential areas of management. They can have a great effect on your profit potential.

Know-how — Apply the best information available. Excellent sources include your Agricultural Extension Service, university research personnel, top sheep producers in your area, vocational agricultural instructors, veterinarians, and magazines. Try to develop a sheep information library. You won't be successful unless you apply the best information available. Know your areas of weaknesses and strengths that significantly affect your flocks' level of production. The number of lambs \times average sale weight \times price = gross profit.

Breeding Ewes — Crossbreeding will increase sheep production 15-20 percent. Whiteface ewes normally live longer, shear 10-14 pounds of wool, and are excellent producers when crossed with big, meaty, black-faced rams. Part Finn ewes will increase lambling rate significantly.

Your flock improvement will come primarily through the use of good, productive rams. Keep some type of record. A minimum would be identification to determine ewe age (ear notching or colored ear tags), whether lambs were born as twins, average weaning percent, and average age and weight of lambs sold. Keep records that contribute to your success.

Breeding Time — The date ewes are first exposed to the ram affects the entire year's management program (lambling date, marketing date, feeding program, type of shelter required, etc.). Avoid using over-fat, full-fleeced rams. Their fertility is questionable. Use more than one ram to avoid the possibility of a single ram being sterile.

Culling — Mark unproductive and unhealthy ewes at lambling time (mastitis, age, prolapse, barren ewes, etc.). Market those ewes when the lambs are weaned. Don't breed or feed a ewe that has little potential to produce profitably.

Feeding — Feed costs represent 60-70 percent of the total production cost. Feed your sheep what they need for each production stage. Don't waste feed or expect to starve profit into your flock. Alfalfa hay provides almost all the nutrients a ewe needs other than salt and some additional energy during late gestation and lactation. Corn silage and grass hay are good sources of energy, but they need to be supplemented with calcium, phosphorus, and protein.

Have more than one lot in which to feed your sheep. Divide the thin ewes from the fat ewes, the young from the old, and close-up ewes from "late lambers."

Lambling Time — You can expect lambs 145 days after ewes were exposed to the rams. Be ready. Shear the ewes prior to lambling if you have shelter. Divide the drop band into at least two groups (early and late lambers) for ease of management, feeding, and lamb identification. Expect to have some orphans, and provide a ewe milk replacement feeding program.

Health and Disease — Know what diseases may confront you (magazines, extension service, and veterinarians are good information sources). The major diseases include: parasites, pneumonia, pregnancy disease, vibrio, enterotoxemia, sore mouth, scours, mastitis, foot rot, and urinary calculi. Sheep with high temperatures (104^o-106^oF) are sick.

Learn to recognize the sick sheep from the healthy one. Watch for laggards, sheep off by themselves, and sheep that don't eat. Be a manure watcher; the nature of the manure tells a great deal about the health of the sheep.

Marketing — Mark a sample of your lambs and weigh them monthly. This will tell you whether you are feeding enough of the right foods and when the lambs are ready to market. Don't normally market lambs less than 105 pounds. Sell when they are ready. That means marketing lambs at two or three separate intervals.

Buildings and Equipment — High construction costs and astronomical interest rates mean that building costs and equipment contribute significantly to the cost of producing lambs. Lambling your flock in two separate groups doubles the use of the building, equipment, and rams and significantly reduces production costs.

You can't profitably raise sheep without using bunks that minimize grain and hay waste. A profit-making sheep enterprise has lamb panels, drugs, syringes, drenching equipment, etc., available. Keep the yards picked up. Broken boards, protruding nails, and old paint cans can kill sheep.

Predators — Dogs and coyotes can raise havoc; discourage their presence. Circumstances may necessitate yarding in drylot under lights at night.

Calendar of Events

Dates that
fit
my schedule

August 15–30 days prior to the breeding season

1. **Shear rams.** It increases vigor and activity of the rams and helps avoid ram sterility due to high temperatures.
2. **Check testes** of ram for abnormalities (swollen or abnormally small testes). Rams with small testes sire lambs that will produce fewer lambs.
3. **Trim the feet of rams.**
4. **Feed grain** if rams are in only moderate flesh. Rams respond to flushing as do ewes. They produce more sperm and have greater libido.

August 15–Cull, final

1. **Bag and mouth ewes.**
 - a. Cull ewes showing any evidence of udder abscesses or lumps and ewes that have large teats and low hanging pendulous udders (handle each ewe's udder). Cull problem ewes that increase labor and management problems.
 - b. Cull ewes that have broken incisor teeth or missing molar teeth. They are likely to be unprofitable.
2. **Type, condition, and size.**
 - a. Ewes that are fat in the fall generally have been poor producers; check your records.
 - b. Select big framed ewes with open faces and long, dense fleeces.
 - c. Check feet. Observe for lameness and correct condition.
3. **Keep records.** We use an index formula based on pounds of wool and pounds of lamb produced per ewe at 80 days of age. This scheme has resulted in an increase of approximately 40 percent in lamb crop raised to 80 days during a 25-year period. A simple index = pounds of lamb + pounds of wool per ewe. Our index: pounds of wool shorn x 3.4 + pounds of lamb when lambs are 80 days of age ÷ weight x 100 = ewe's index per 100 pounds of ewe.
Note: Cull by age group from this index if used.

September 1 – Internal parasite control

“Worm” all ewes with an effective anthelmintic (2-3 weeks before turning in rams). We use Levamisole (Tramisol) as a drench, though the cattle injectable type is preferred by many progressive producers, or Halox (Loxon). Phenothiazine and lead arsenate are used at least once during the year; lead arsenate controls tapeworms.

Dates that
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September 1 – Flush ewes and rams (increases multiple births)

1. Two weeks prior to breeding, feed ½ to 1 pound of grain per head daily, depending on the ewe's condition, plus approximately 4 pounds of good hay (what they will clean up).
2. A good pasture also may be used to flush ewes, with or without added grain (amount of grain fed would depend on the quality of the pasture).

September 15 - 17 – Breeding season starts

Vaccinate for vibrio at this time and 2 months later—first year if never vaccinated; second year mid-pregnancy or 2½ months after rams with ewes. We don't vaccinate since we have had no problem, but we will have to eventually.

1. A ram marking harness or colored nondrying paint just forward of the sheath of the ram will provide an indicator of the ram's fertility (change colors every 17 days).
2. We leave the ram with the mature ewes 35 days, but 50 days would result in a few more ewes lambing. Breed ewe lambs a month later than the old ewes (use a ram lamb on ewe lambs). An alternative breeding program is to expose your entire flock for 22-25 days, remove the rams for 3-4 weeks, and then return the rams for 25-30 days so as to breed with your ewe lambs. This will increase the efficiency of your facilities.
3. Stop feeding grain 2-3 weeks into the breeding season. Feed good quality hay.
4. Feed approximately 3½ pounds of good hay per ewe daily until a month before lambing; then increase to 4 pounds, or preferably add ½ to 1 pound grain per ewe daily. Feed salt with added selenium (30 ppm) throughout the year. Cornstalks could be grazed until snow-covered if supplemented with at least 2 pounds of alfalfa per ewe daily.

November 15

1. Vibrio vaccinate ewes second time.
2. Enterotoxemia
 - a. Vaccinate ewes for overeating with C & D if never vaccinated, and again 2-3 weeks prior to lambing.
 - b. If ewes were vaccinated for overeating as a lamb, vaccinate them once with C & D toxoid 2-3 weeks prior to lambing.

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January 15 – Start grain feeding bred ewes

1. Feed ½ to 1 pound of grain per head daily, depending on the ewe's condition, plus 4 pounds of legume hay. If no *green* feed has been fed within a month, feed 50,000 I.U. vitamin A in ground grain ration for one day on three occasions, each one week apart.

Gestating and lactating ewe ration – 15% protein

	Ration 1	Ration 2
Corn (whole)	1000 lb.	Corn and alfalfa or
Oats (whole)	600 lb.	Corn 900 lb. with nonlegume forage
Bran	200 lb.	100 lb. SBM
SBM (44% protein)	200 lb.	

2. Vaccinate ewes second time for overeating; use C & D toxoid.

February 1 – Shear ewes prior to lambing.

It makes the barn roomier, warmer, and drier.

February 5

Paint-brand ewes for easy identification, or use large type ear tags.

February 15 – Lambing starts

1. 4 foot x 4 foot pens used (2 panels 4 feet long, hinged or tied in the middle); 250-watt infrared heat lamps used; fire precautions taken—porcelain sockets suspended by chain. Use lamps sparingly; don't leave on unattended. Provide one pen or jug for each 10 ewes lambing. Move ewe to jug after she has lambed. Leave ewe and lamb in jug 24-48 hours. Open ewe's teats since it is a big help to a weak lamb and indicates to the shepherd whether the ewe has milk.
2. Feeding "lambled-out" ewes. Provide fresh water in jug.
 - a. Give ewe no grain or only ½ pound of grain the first day, plus good hay.
 - b. Increase grain to 1 pound per head in two days.
 - c. Feed approximately 5 pounds of hay and up to 2 pounds of corn per ewe daily a week after lambing.
 - d. Discontinue grain after 6-8 weeks.
3. **The lamb**
 - a. Delivery - clean bedding after each ewe.
 - b. Clip and dip navels (7 percent tincture of iodine).
 - c. Ear mark lambs to identify twin lambs.
 - d. Assist ewe if lamb not delivered within an hour after labor commences.

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e. Paint mark ewe and lambs on side in order of lambing for identification and indication of approximate lamb age.

Example: Ewe 1 2 Lamb No. 1 1 Lamb No. 2 2

f. Dock lambs at 3-5 days.

g. Keep barn well ventilated and watch for pneumonia; timely injection of right antibiotic will save many.

h. Castrate lambs at 10-14 days. Note: Early born creep fed lambs are not castrated if sold by July 1. (Check your market before leaving ram lambs intact.)

i. The hollow gutted, bleating, humped up lamb is starving to death. Why? Mastitis, bumed by mother, or inadequate milk?

j. Orphan lambs

1. Try to foster them onto a ewe nursing a single. Stanchion type fostering pens will result in 70-90 percent success.

2. Transfer to orphan pen and feed milk replacer (1 part milk powder and 4 parts water). If possible, transfer before orphan starts nursing its mother; get colostrum into orphan.

3. Add 1 cc formalin per gallon of milk to prevent spoiling.

4. Presence of one or two trained lambs will help new orphan learn to suckle in orphan pen.

Note: Confining ewe in stanchion is a great aid in getting ewes to accept orphan lambs.

February 25 – Start creep feeding (Make creep area more attractive to lamb than outside area. A heat lamp or low wattage bulb in creep area helps attract lambs.)

1. Start creep feeding when lambs are 10 days of age.
2. Use rollers to permit easy access into creep area. (Plastic pipe works well as rollers.)
3. West Central Experiment Station creep ration: (approximately 14 percent protein)

Ration 1

50% cracked shelled corn
30% oats (rolled)
9% bran
10% soybean oil meal (44% protein)
.5% salt with selenium
.5% limestone
.2% ammonium chloride
<hr/> 100.1%

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or Ration 2

88.8% cracked corn
10% soybean meal
.5% salt with selenium
.5% limestone
.2% ammonium chloride (prevents urinary
calculi)

100%

Antibiotics may be added (50 g/ton first half of creep feeding period, 25 g/ton second half of creep feeding period). **Note:** To add 50 grams of antibiotics per ton, add 5 lb. of TM 10 or 5 lb. of Aurofac 10 or other suitable antibiotic per ton.

March 10

1. Vaccinate lambs for sore mouth if it is a problem.
2. Vaccinate lambs for overeating with C & D toxoid as they reach 3 to 4 weeks of age. This is an absolute **must** if you intend to full-feed.

March 20 – Vaccinate lambs for overeating the second time with C & D toxoid.

1. Keep feed clean and creep area dry for the lambs.
2. **Drench ewes**
Worms are most vulnerable to anthelmintic in late winter-early spring.

May 1 – Foot trimming and second “worming” – Cull ewes first time.

1. Trim ewe's feet.
2. Foot rot remedy: Pare hoof and trim; stand sheep in saturated solution of copper sulfate or 10% Formalin for 5 minutes, and then spray with 10% solution of chloramphenicol. We have had no foot rot. It is a curse and very difficult to clean up. The organism remains on the ground for only 2-3 weeks.
3. Second “worming” (3-4 days before they go to pasture) - Use phenothiazine (micronized) drench (4 lbs. phenothiazine/gal. of water—2 ozs./ewe, 1 oz./lamb).
4. Cull ewes that were barren, bad udder, poor milkers, poor mothers, ruptures, etc. No need to feed ewes all summer if they aren't “keepers.” Gradually change creep ration from ground grain to whole grain. Use of pelleted protein supplement prevents separation.

May 3 - 15 – Ewes to pasture. (Lambs are weaned at 10-12 weeks of age—approximately 80 days from mature ewes, 60 days from ewe lambs—and fed out in drylot.) If your pasture is ready sooner, you may wean at 8 weeks. To dry up ewes don't

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fit
my schedule

feed or water them for at least 1½ days. Don't put ewes on pasture until they are dried up; this will help prevent mastitis.

1. Select ewe lamb replacements from top end of twins and singles and put on grower ration. Don't get them over-fat.
2. Lambs are creep fed on pasture if they go to pasture.
3. Rape and oats makes a satisfactory annual pasture (7-8 pounds of rape seeded with 1½ bushels of oats).
4. A permanent pasture mix we have liked:

	Mix 1	Mix 2
Alfalfa	5 - 7 lb.	6 - 8 lb.
Brome grass	6 lb.	4 lb.
Timothy	1 - 2 lb.	—
Orchard grass	1 - 3 lb.	3 lb.
Meadow fescue	1 - 3 lb.	—

To maintain alfalfa in your pasture, you must rotate sheep every three weeks among different pastures.

5. Keep this mineral mixture before ewes at all times (self-fed) while on pasture. When ewes are in drylot, remove the phenothiazine.
6 parts trace mineralized salt
3 parts dicalcium phosphate or bone meal
1 part phenothiazine powder

June 1 -- Sell lambs that weigh 100-110 pounds. (Top them out two or three times.)

June 10 – “Worm” ewes third time

1. Use phenothiazine (micronized)—lead arsenate drench (for roundworm and tapeworm control).
2. If lambs go to pasture, plan on drenching them every 30 days.

June 15 – Spray for ticks and other external parasites. Read and heed labels. We use Malathion (.05% spray).

Top out market lambs second time.

July 1

1. **Shear replacement ewe lambs.** (Then they are more likely to breed the first fall because during the summer they will eat more feed and weigh 10-12 pounds more.)
2. Tag ewes and lambs if needed (avoid maggots).

July 1 - August 15 – Start looking for stud rams. Ninety percent of genetic improvement in your ewe flock will be derived from the ram.

The following comments do not fit into a calendar, but they are vital to a successful sheep enterprise.



Ram Selection

1. Using a poor ram can be expensive. Don't delay your purchase until all the good rams have been sold.
2. A ram proven to be genetically superior for gain ability can add 7-8 pounds of weight to each lamb he sires:
40 lambs x 7 lb. = 280 lb. of lamb; x 60 cents/lb. = \$168.00 additional yearly lamb income
3. Number of ewes to breed per ram:
Yearling-mature ram: breed 40-60 ewes
Ram lamb, 7- to 8-month-old: breed 30-40 ewes
4. Large rams tend to sire faster gaining lambs.
5. Check reproductive tract—sheath for pizzle rot infection and testes for size, uniformity, and epididymitis.

Marketing

Market lambs at 100-110 pounds; in the Midwest, preferably May, June, or July. August is often a time of lower prices.

Equipment

1. Allow 1½ feet of feeder rack space per ewe and 15-20 square feet per ewe of lamb barn space.
2. One-half of 50 gallon barrels are usable as waterers (preferably with a float). Provide 1 to 1½ gallons of water per ewe per day. Snow is a poor substitute for water.
3. Twenty dollars invested in a hay-grain feeder will save \$40 in feed annually.

Wool

1. Wool contributes 10-20 percent of gross income. Long and uniform fibers contribute most to weight and value.
2. Tie wool with paper twine, **not** binder twine; sisal fibers will not take dye and must be removed by hand. Plastic twine will reduce wool value by 40-50 percent.
3. Don't shear ewes when wet.
4. Treat and care for wool as the valuable product it is.

Medications

1. Disinfect navel of newborn lamb with tincture of iodine. (Use a cupful and soak navel in iodine.)
2. **Foul sheath** — We have used powdered copper sulfate. Powder sheath with dry powder and apply it three times, once a day for three days; or use peroxide 3 percent.

3. **Pneumonia is the big problem.** Chlorotetracyclines, streptomycin, and chloramphenicol are used with success. A syringe and knowledge of how to administer antibiotics can save many lambs.

Medicine cabinet and supplies for sheep barn

Drug syringe
 Balling gun for sulfa and anthelmintic boluses
 Antibiotics injectable — pneumonia, mastitis, and infection
 Drenching syringe makes a tedious task easier
 Emasculator — docking minimizes bleeding (ours has an electric heating unit on it)
 All-in-one lamb castrator — good tool for either castrating or docking
 Tweezers — needle and thread — for turned in eyelids (or surgical scissors)
 Ear tags and pliers
 Pink eye powder
 Formalin — good germicide, helps counter foot rot and is used to prevent milk replacer from spoiling
 Copper sulfate (foul sheath)
 Maggot repellent
 Creolin, lysol, or Nolvasan for disinfecting tools, hands, etc.
 Sheep halter to restrain ewes
 Fly repellent — pinetar
 Plastic ewe retainers for cases of prolapse
 Iodine
 Mineral oil
 Anthelmintics — phenothiazine, tramisol, or loxon
 Urea, sulfa compound, or bolus as uterine antiseptic
 Bucket that is used for nothing other than surgery procedures
 Lubricant for aiding ewe during lambing
 Propylene glycol for pregnancy disease (much better than glucose)
 Heat lamps — use with caution, they can start fires
 Milk replacer — absolute must for conscientious producer
 Human catheter and 2 oz. syringe for administering colostrum or milk into weak lamb
 Frozen ewe colostrum, or cow colostrum if no ewe colostrum on hand

A calendar of anticipated events will help you do the right thing at the right time — and that spells added money.