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Commercial Feedlots and Veterinary Medicine in the Imperial Valley of California

Richard D. Collins*

This past summer it was my pleasure to be employed by James R. Howard (ISU '54) D.V.M., Ph.D., veterinary pathologist, of the Imperial Valley of California. Dr. Howard has established an almost 100 percent feedlot practice. I present this paper to help inform veterinarians of how cattle are handled in this particular commercial feedlot practice in hopes that some ideas can be transferred to other feedlot setups.

Dr. Howard provides consultation and research on a contract basis. He now has 60,000 head of cattle under his care. He is given charge of the health programs of the feedlot companies, extends advice to the over-all care of the cattle and performs well needed, practical research to better classify the disease conditions as they are seen in these lots.

To be more specific as to his day to day work, he performs autopsies on all cattle that die and keeps a running record of the diagnoses and the cowboy in charge. The pen of calves that the dead steer came from is then examined, and any recommendations as to management changes or therapy initiation are made. Dr. Howard has his own bacterial isolation and identification equipment, histopathology preparation and examination equipment, and other various diagnostic aids such as a spectrophotometer and hematology equipment. He uses these facilities to better classify the disease processes in these feedlots.

He does very little treating himself except to administer blood transfusions. The cowboys who are employees of the feedlot companies and who are responsible for a certain number of pens of cattle do almost all of the day to day treatment. Dr. Howard is alerted by the cowboys to any cases that do not respond to the usual treatment regime. Most all sickness problems are

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handled by the cowboys with a standard
treatment. Specific cases such as leptospirosis and bacillary hemoglobinuria are fol-
lowed up personally by Dr. Howard. All medicines are purchased through a local
drug outlet by the companies. Dr. Howard does not handle drugs to any extent be-
cause it is uneconomical to compete with these outlets and their high volume, re-
duced price sales.

**Prefeeding Preparation**

Prefeeding preparation of cattle is handled differently in many respects in the Imperial Valley from that in the Midwest. The cattle that are fed in these lots have wide and varied origins and breed-
ing. Calves weighing about 350-400 pounds come from Texas and Oklahoma primarily and some from Florida, Louisi-
a, and old Mexico. The calves are pur-
chased individually at sale barns and re-
tined there until a truck load is assembled.
They are then trucked to the feedlots in the Imperial Valley. Soon after unloading, the cattle are processed. This includes de-
worming, dipping, dehorning, implanting
of growth stimulants, branding, castrating and injecting a vitamin ADE product and
infectious bovine rhino tracheitis vaccine.
Some lots vaccinate for leptospirosis and
for the bovine virus diarrhea-mucosal dis-
ease complex (BVD-MD) at this time. The
vaccination for these two diseases is not a
widespread practice, however. No medi-
cation is added to the feed or water. All
of this prefeeding preparation is done by
lay help.

**Feeding**

The calves upon introduction to the feedlot are fed their fill of hay and clean
water on the first day. Starting on the
second day they are given mill feed
(ground feed) on top of the roughage. On
successive days the amount of roughage
is decreased and the mill feed increased.
Three or four basic rations are fed
throughout the growing and fattening
period. The concentrate percentage in-
creases and the roughage percentage de-
creases as the calves grow and fatten.

Some of the commodities used in this area
are alfalfa, cotton hulls, orange peels, beet
pulp, hominy, bakery or ground bread pro-
ducts, wheat, milo, fat, molasses, and
minerals. Growth hormones are added to
the feed also. Some of these ingredients
are not well known to the Midwest cattle
feeder but are widely used in the Imperial
Valley because of their availability and
reasonably lower cost. These feedlots are
looking for the cheapest gain possible and
will buy in volume to decrease their costs.

**Principal Health Problems**

The principle health problems as seen in the Imperial Valley are numerous and
varied. The half-a-million fat steers that
leave the Imperial Valley for market each
time provides a large nidus for any of a
number of disease conditions to grow on.
The primary cause of death throughout
the feedlots is pneumonia. This being pri-
mary as in shipping fever or secondary
as in the various virus infections. About
25% of all the cattle that enter the lots
come down with the various degrees of
shipping fever. These cattle are all treated
the same regardless of the condition. The
standard treatment includes either peni-
cillin-dihydrostreptomycin or oxytetracy-
clines HC or a combination of the two.
Thirty cc. of either drug or 20 cc. of each
drug in combination is used. This same
amount is administered each day by the
cowboys if the animal still appears sick.
This therapy is continued about five days
if no real improvement is noticed. If at
the end of that five days there is no im-
provement or relapse, the treatments are
discontinued and the animal observed for
a couple days. If relapse occurs, the ther-
apy is reinstated. All cattle under daily
treatment are returned to their same pens.
The opinion is that the change of the en-
vironment of the hospital pen and the in-
troduction of different feed will add just
that much more stress to their condition.
The pens are so contaminated with the
diseases known to that area that isolation
is fruitless.

The next most common condition is
associated with castration. Most of the

*Issue, No. 3, 1969*
calves are castrated by cutting in the Imperial Valley. Because lay personnel are used to castrate these calves, hemorrhage and infection are common sequelae. The infections are treated in the same manner as the shipping fevers. Some infections require opening and flushing as subsequent treatment. The other problem of postcastration is hemorrhage. Blood transfusions are widely instituted by Dr. Howard for this condition using the vast number of cattle available as his blood source. Transfusions are also used in leptospirosis cases.

A number of other conditions are commonplace in the lots both at physical examination and at autopsy. These include leptospirosis as mentioned before, infectious bovine rhinotracheitis, bovine virus diarrhea-mucosal disease complex, coccidioidomycosis, anaplasmosis, and fluke-initiated bacillary hemoglobinuria. The organisms causing these diseases are readily available because of the contaminated pens and the multitude of cattle of different origin and background. Few encephalitic diseases are diagnosed especially during the summer. This is consistent with encephalitides usually being cold weather diseases. The ambient temperature of the Imperial Valley during the summer months often reaches 120°F. The exception is coccidial encephalopathy which is a very common disease process there.

**Conclusion**

Commercial feedlot practice is just another example of the expanding opportunities opening for veterinarians. It has some new problems and some of the same old problems. Disease processes and handling of cattle are often different. This new aspect of veterinary medicine is just beginning, and the future looks very promising and profitable.

**ACKNOWLEDGEMENTS**

The author wishes to express his appreciation to Dr. J. R. Howard for his assistance in the preparation of this manuscript.

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**Answers to Small Animal Review**

1. 85%–90% of all pups have lost their maternal antibody titer by the time they reach nine weeks of age. By fourteen weeks of age, at least 95% of all pups have lost their antibody titer.
2. Feline infectious peritonitis.
3. Hypertrophic pulmonary osteoarthropathy.
4. In the cervical area, resulting pressure from a disc syndrome affects the ventral spinal nerves, therefore, giving subsequent pain rather than paralysis. In the thoraco-lumbar area, the involved discs put pressure on the spinal cord, resulting in paralysis.
5. The three conditions are: 1) Avascular necrosis of femoral head; 2) Avascular necrosis of tibial crest; 3) Osteochondritis dissecans. Corticosteroids would reduce the blood supply to these areas, and, therefore, would reduce healing. Also, steroids would reduce pain sensations from these areas, therefore, the dog would be more apt to aggravate the condition by over-exercising the affected parts, instead of resting it as is recommended.
7. a. Corneal ulcer  
   b. Superficial punctate keratitis  
   c. Entropion  
   d. Glaucoma  
   e. Retinal ectasia  
   f. Distichiasis
8. Persistent patency of the ductus arteriosus.

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