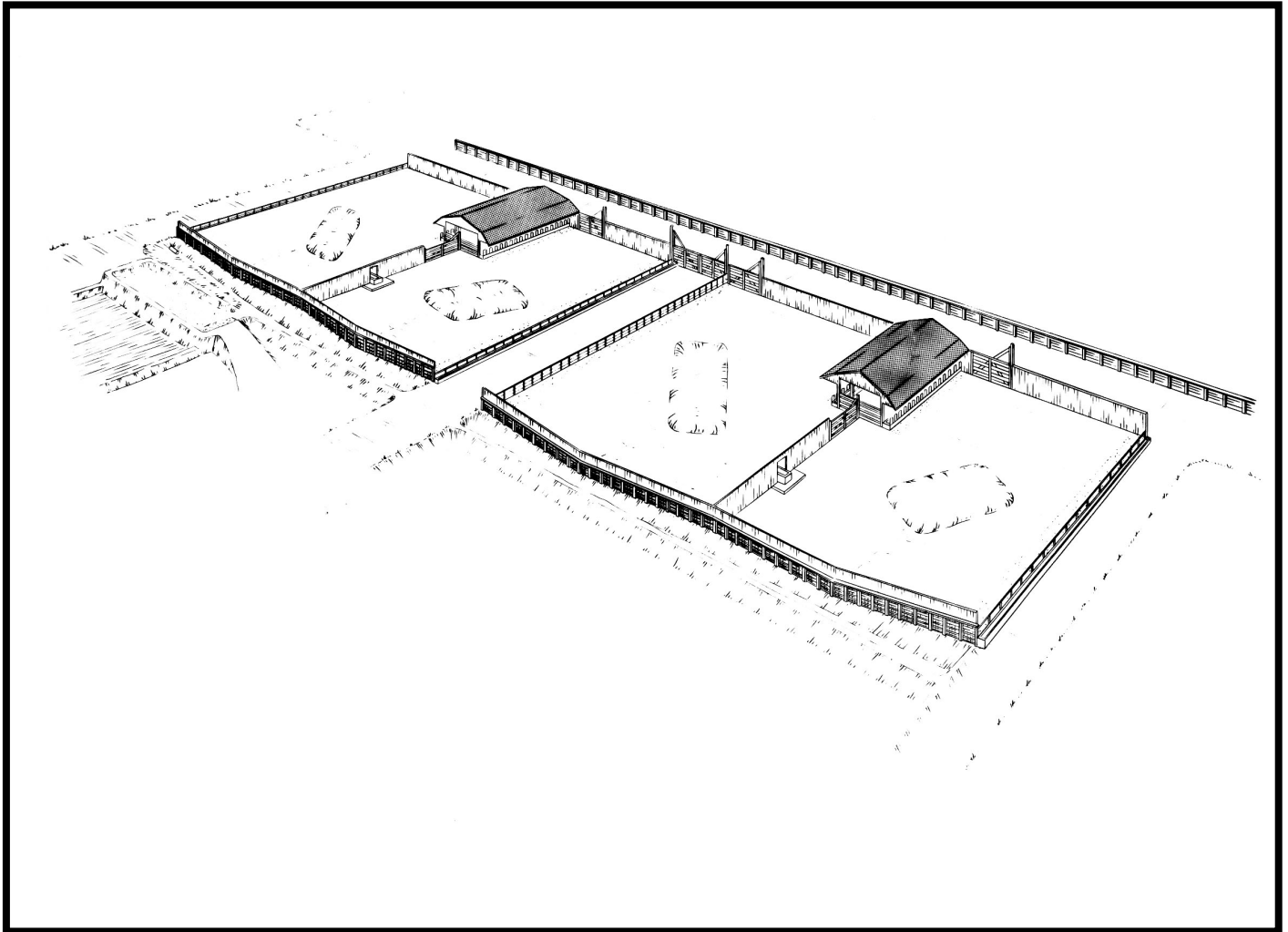


BACKGROUNDING FEEDLOT



BACKGROUNDING FEEDLOT

This is a plan for a dryland beef feedlot for backgrounding cattle from weaning to yearling weights. It is expandable in lots of 100 cattle. Mostly unpaved, this plan is for regions where annual precipitation is less than 20 inches.

This plan provided several options for the feed source. Each lot contains enough fence-line feed bunk space for limit-feeding (about 20 inches/head). A 40 ft. clearspan hay shed with feed fence is shared between two adjacent lots. It provides enough hay storage for about one ton/head, and enough feed bunk space for self-feeding (about 9 inches/head).

Each lot is about 150 x 170 ft., based on 100 backgrounding cattle at 250 sq. ft. of lot area per head.

FEEDLOT DRAINAGE

Unpaved feedlots drain faster and dry better if the ground slopes 4 to 8% away from feeding and bedded resting areas. This plan is best laid out for location on a rounded hill or south-facing slope. Feed bunks run face-to-face along a feed alley at the highest side of each lot; this provides the best drainage at the front of the lots. Run the feed alleys generally north-and-south so that no part of the feeding areas or roadway is continuously shaded from the winter sun. Make the double feed alleys at least 40 ft. wide to make room for plowing snow away from the feed bunks before feeding.

Before building perimeter fences, feed bunks, etc., shape the site for drainage. A bulldozer, road maintainer or even an earthmover may be required if large amounts of soil must be moved. For sites sloping uniformly to the south, landscape to a hill-and-valley pattern as shown in the plan; if necessary, emphasize front-to-back slope within the lots at the expense of outlet slope to the south.

COLLECTING FEEDLOT RUNOFF

All provinces have laws regulating the discharge of feedlot runoff into surface and groundwater supplies. To control pollution, build shallow diversion dykes and ditches around the outside; this keeps "clean" runoff water from surrounding fields and roadways out of the lots. Shape shallow ditches to collect runoff near the back of each lot, and lead these into a holding system. Spread topsoil and seed grass on all ditch and bank areas that are outside the cattle pens.

A two-stage runoff holding system works best. This has a shallow sediment basin, then the liquid part trickles through a trash screen or narrow vertical slot into the holding basin. After drying, scrape up the solids remaining in the sediment basin, pump out the holding basin, and spread all the material back onto cropland as fertilizer.

Contact local authorities for specific design requirements of the runoff holding system.

FENCELINE FEEDING, PAVING

The plan refers to other leaflets showing ways to build fenceline feed bunks, for mechanical feeding from a self-unloading forage wagon or mixer truck. It is recommended that a concrete apron be constructed along the feed bunk to eliminate mud hoes in the lot. This apron should be a bit wider than the blade of the cleaning tractor, but at least 6 ft. wide. In wetter regions, (over 20 inches annual precipitation), the width of the apron may be increased and the total depth of the feedlot reduced accordingly.

WIND AND SNOW CONTROL

Research show that 20% porous windbreak fencing provides better shelter than solid fencing; it can reduce the windspeed at ground level to a downwind distance of 20 times the height of the fence. For lots sized as shown, 10 ft. windbreak fencing is recommended. In exposed locations with snow, add snow fencing or a tree shelter-belt about 150 ft. upwind from the feedlot windbreak fence.

BEDDED AREAS

A bedded mound in each lot gives cattle a dry place to bed down. Some operators, especially in wetter regions, add a pole shed with front or end completely open to the south, for protection from winter rains and snow and from summer heat. The open-end shed, being deeper, gives more protection from wind and snow but doesn't let in as much winter sunshine as the open-front shed. Both designs drain roof water away from the open south side.