

PART 3: PRESCRIPTION

CHAPTER 3.1 PROJECTS

3.1.1 Project Identification

In the following section each outline prescription is briefly described and projects assigned to it. The outline prescription, and hence projects, are grouped according to the relevant operational objective.

Operational Objective 1: Maintain the large, unfragmented area of uniformly structured, botanically rich calcicolous grassland, and its associated plant and animal species.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
1.1 Maintain the current cattle and sheep grazing regime using NCC herd and flocks.	The main area of calcicolous grassland (comp 1& 2) is grazed with both cattle and sheep all year. Maintain a max of 80 beef cows of a variety of breeds calving on the open down. Calves should be weaned after 6-9 months. A bull should be hired. Around 120 ewes with twin lambs should be put on the down in April shortly after lambing. Sell lambs from July to October. Remove ewes from the down shortly prior to lambing in March. Feed stock in the winter (see Annex 3.1.1). Carry out all husbandry needed to maintain stock.	MH10/01 MH19/01 MG00/01 02,03,04,05 MG10/01,03, 04,05
1.2 Maintain back-up land to allow the manipulation of stock numbers.	Apply 1½ cwt/acre of artificial fertiliser (29. 5.5 NPK) in late March and again in late May. Chain harrow in May. Spread farmyard manure Dec-Feb. Re-seed leys every 5-7 years. Roll prior to shutting up hayfield.	MH01/03 MH19/01,02
1.3 Maintain farm infrastructure.	All boundary and internal fences need to be checked and repaired when necessary. Farm buildings, including cattle and sheep handling facilities, dry store, hay barn, The water supply needs to be maintained, as do vehicles, machinery and tools. A bull pen and isolation boxes will be needed.	ME10/01 ME20/01 ME30/01 ME30/02 ME70/01 MM00/01 MM10/01 MM20/01
1.4 Monitor and record grazing levels.	Detailed records should be kept of livestock movements on and off the down with numbers. From these totals grazing pressure in any one year can be calculated.	RH80/01

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
1.5 Monitor the grassland habitat for changes in species composition and sward height.	The main method for monitoring the vegetation is permanent quadrats. Some of these should be recorded annually and some should be recorded less frequently. The width of <u>Brachypodium pinnatum</u> patches should be measured. Further monitoring could be carried out by species distribution maps. Sward height should be measured on a number of areas on the down. Additional groups should be surveyed (ie fungi, bryophytes). Fixed point photographs should be taken once each 5-10 years.	RF23/01,02,03 RF32/01 RF62/01 RV10/01
1.6 Encourage specialists to study and evaluate the invertebrate species occurring on the reserve.	Invertebrate samples have been collected by both ITE and NCC. The identification and evaluation of these samples has stopped due to pressure of other work. If possible resources/time should be made available to continue this work.	RA85

Operational Objective 2: Maintain all rare and nationally restricted plant and animal species.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
2.1 Map the distribution of nationally restricted species resurveying at appropriate intervals.	The mapping of any nationally restricted species not yet mapped should be carried out using a 100m x 100m, or 50m x 50m grid. All should be resurveyed every 10 years.	RF22/01
2.2 Estimate/count where feasible the abundance of restricted species within each area of occurrence, resurvey at intervals.	Counts of species within plots should be carried out from replicated plots, and estimates made from these data and distribution maps of the total population. Priority species are <u>Gentianella anglica</u> with annual counts and <u>Orchis ustulata</u> which will not need repeating for several years.	RF23/02
2.3 Where possible investigate and record factors affecting or appearing to affect abundance or distribution.	Study into the ecological requirements of nationally restricted species should be encouraged whenever the opportunities arise. File notes should be made and circulated whenever observations are made on the reaction of any rare species to changes in management, levels of disturbance, climate, etc.	RF23/04
2.4 Encourage specialists to study and evaluate the rare and notable invertebrate species occurring on the reserve.	Specialist advice will be needed should any rare or notable invertebrates require particular management in addition to that already occurring.	RA85/01

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
2.5 Carry out management changes to encourage species where indicated by monitoring.	This is most likely to be necessary for <u>Gentianella anglica</u> , and will probably involve a change to more cattle grazing with heavier beasts on Parsonage Down.	MH10/01 MS10/01
Operational Objective 3: Encourage the reversion of semi-improved pasture to calcicolous grassland.		
OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
3.1 Research and evaluate the factors affecting the recolonisation of chalk grassland species both on and off the reserve.	A literature search and consultation within the region, CSD and other organisation would provide information on recolonisation. Research projects (eg turf transplants) and recording on the reserve may highlight some of the processes.	RF25/01
3.2 Carry out management enhancing recolonisation.	Possible methods include relaxing the grazing pressure, taking hay crops or reseedling with a downland seed mix.	MH10/02 MH12/01 MH13/01
3.3 Monitor semi-improved plant communities.	Permanent quadrats should be monitored here every year and especially should management change. Additional vegetation monitoring may need to take place, eg up to date species lists for sub compartment.	RF23/01 RF23/02 RF25/01
Operational Objective 4: Maintain and develop secondary habitats on the reserve.		
OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
4.1 Maintain existing areas of hawthorn and gorse scrub.	As has been described in 1.2.2.1.iii, the regeneration of scrub at Castle Bushes is thought to depend on the regeneration of gorse; this should be monitored. On Castle Down there is little regeneration and temporary fencing may need to be carried out there. This may also need to be done at Castle Bushes. Coppicing leggy scrub will keep scrub at a useful stage for nesting birds.	RF13/01 MH00/01 MH06/01
4.2 Maintain and develop areas of broadleaved woodland.	All woodland should be fenced off from livestock. A range of native species should be planted in the gaps made by fallen trees. Structural diversity should be increased especially in the Beeches (comp 16) and Castle Barn plantation (comp 1c). Dead wood habitat should be left.	MH01/01 MH06/01 MS40/01

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
4.3 Maintain and establish dew ponds.	The existing dew pond needs to be maintained by fencing repairs, periodic clearing out, lining repairs and replacement. A second old dew pond on Parsonage Bank will be relined. There is the potential here to create a deeper pond less likely to dry out, and introduce marginal and submerged aquatic plants.	MH62/01 MH64/01 MH69/01,02
4.4 Maintain and develop hedges and scrub belts.	The Hedgerow, a large shelter belt, will need replanting as existing trees die. Several undergrazed and gappy hedge lines occur which should be fenced and gapped up. Leggy bushes should be coppiced. Other areas of hedge and shelterbelt should be planted.	MH00/01 MH01/01 MH06/01 MS40/01
4.5 Maintain and establish small areas of long vegetation.	Existing long vegetation occurs within the dew pond and Castle Scrub (comp 1a). Further small areas will be created on Castle Down by fencing off 2 small areas in valley bottoms. Areas of long vegetation will also be catered for within hedgerows and shelterbelts. Where possible long grass should be grazed occasionally to prevent reversion to scrub.	MH10/01,03 MH16/01
4.6 Monitor wildlife of secondary habitats.	General recording of the wildlife in secondary habitats should take place.	RF00/01, RF62/01 RF13/01, RA03/01 RF22/01, RA13/01 RF32/01, RA43/01 RA85/01

Operational Objective 5: Re-establish breeding populations of rare and notable species formerly occurring on the reserve.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
5.1 Study and evaluate the options for encouraging stone curlew.	Collect information on the habitat requirements of the species, seeking specialist advice (RSPB). Document the loss of the species from the reserve.	RA15/01
5.2 Evaluate the suitability of the reserve for reintroducing the Adonis blue.	Seek specialist advice on the current suitability of the site. Map distribution of <u>Hippocrepis comosa</u> .	RF22/01 RA45/01
5.3 Take appropriate action based on these evaluations.	Stone curlew breeding habitat could be created by cultivating 1-2 ha of less botanically rich grassland.	MH19/02

Operational Objective 6: Protect the reserve from damage and disturbance.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
6.1 Liaise with Police.	Maintain close contacts through farmwatch scheme.	ML60/01
6.2 Evict coursers and other trespassers if appropriate, and where this involves no personal risk.	Appearing when coursers are on the site is often enough to make them leave. Regular patrol can be carried out when checking the livestock.	MP00/01 RH70/01

Operational Objective 7: Maintain a working farm operating without cost to the public purse and preferably at a profit.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
7.1 Rear additional livestock to exploit the extra grazing available.	Buy steer calves in winter, and keep in yards. Graze on the back-up land over the summer and sell in autumn.	MG00/05,06
7.2 Use marketable breeds of livestock such as continental cross cattle and Scotch half bred Suffolk sheep.	The charolais bull should continue to be hired. Buy in replacement cows with calves at foot. Scotch half bred ewes will need to be bought in each year. The small Suffolk flock will need to be maintained for ram replacements.	MG00/03,05 MG10/03,05
7.3 Buy and sell livestock at optimum prices.	Regular visits to livestock markets should be made and stock prices followed. Connections with livestock dealers should be maintained.	ML80/02
7.4 Maintain back-up land in good state of productivity.	See outline prescription for 1.2.	
7.5 Aim for self sufficiency in hay production.	Approximately 60 acres of hay should be grown each year. The hay fields should be rolled prior to being shut up. 2 cwt/acre of 29.5.5 NPK should be applied in late March and 12 cwt/acre of 24.4.15 NPK a fortnight after the hay is cut.	MH12/01 MH19/01
7.6 Maintain an accurate book keeping and accounts.	Keep full details of all financial transactions. Liaise with Regional Office staff. Review book keeping system and amend if necessary.	AR50/01
7.7 Review farming system annually or less to assess profitability.	To keep up with changes occurring in the agricultural industry it will be necessary to review current farming strategy. This can be done at the annual site management meeting.	AP80/01

Operational Objective 8: Maintain the small purebred herd of Longhorn cattle.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
8.1 Keep a maximum of 15 breeding cows.	Carry out all husbandry procedures necessary to maintain the herd. Breed replacement cows and a few others for sale if markets available. Keep own bull during useful life, then assess whether to replace by exchange with another herd or to hire.	MG00/01 02,03,04,05,06
8.2 Maintain membership of the Longhorn Society.	Pay the annual fees of the society. Attend functions and sales to maintain contacts for stock selling and bull transfers.	ML80/01

Operational Objective 9: Meet the requirements of the Ancient Monuments and Archaeological Areas Act 1979.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
9.1 Avoid damage to Schedule Ancient Monuments and other archaeological features.	Current management of the downland turf is compatible with avoiding damage to the archaeological features.	MH10/01
9.2 Co-operate with the Ancient Monuments Inspectors.	Consult Ancient Monument Inspectors, before carrying out operations that will disturb the ground.	ML80/04

Operational Objective 10: Meet the legal requirements incurred as a landowner.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
10.1 Identify and assess potential hazards occurring on the reserve.	Make and maintain an up-to-date hazard map.	AP50/01
10.2 Protect visitors by taking necessary safety measures.	The main hazard with group visits is the safety of visitors on the trailers. These need to be well maintained. Staff should be adequately trained in tractor and trailer work.	MM00/01 AI30/01 AT20/01

Operational Objective 11: Meet legal requirements incurred as an employer.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
11.1 Follow health and safety procedures laid down by NCC Safety Hand Book and South Region Safety Policy Statement.	Particular care is needed in livestock handling and use of farm machinery. Staff should be fully trained in machinery operation and maintenance as well as in first aid.	AT30/01
11.2 Carry out regular safety inspections.	This will be done by a member of the Regional Safety Committee.	AI30/01

Operational Objective 12: Meet legal requirements incurred as an agricultural holding.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
12.1 Adhere to legislation concerning stock rearing, medication, disease control and movements.	A statutory minimum area for in-wintered calves has been laid down. On the reserve this is always exceeded and calves are not overcrowded. Warble fly treatment and brucellosis/TT testing is compulsory for cattle and dipping for sheep. Other medications are part of good husbandry practice. There are a number of diseases which are notifiable to MAFF eg Foot and Mouth, Sheep Scab. All stock movements on an off the farm must be entered into a MAFF movements log book. Duplicates are sent to MAFF and Wiltshire County Council twice a year. In addition all cattle must have an ear tag with herd and animal numbers. Livestock owners are responsible for retaining stock and liable for damage should they escape.	ME10/01 MG00/01,02,06 MG10/02
12.2 Control weeds as specified in the Control of Weeds Act 1959.	All noxious weeds (ragwort, spear thistle, creeping thistle, curled and broadleaved docks) should be controlled by tractor topping, knapsack spraying, hand cutting and weed wiper.	MS10/02
12.3 Control pests especially rabbits and prevent them damaging crops.	Casual shooting and fereting has kept numbers to an acceptable level. Should populations become larger contractors may have to be used.	MS30

Operational Objective 13: Maintain good relations with neighbours and the local community.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
13.1 Liaise with neighbouring farmers and the military over boundaries and other issues.	It will be important to liaise with the MoD over possible incursions into the site when military training starts adjacent to the down. Liaison with local farmers of matters such as co-operative fencing and pest control should continue.	ML30/01
13.2 Give preferential treatment to local groups (schools WI) in interpretive programme.	While schools are not encouraged to visit the reserve a dispensation is made for Shrewton Primary School. The local WI have been asked to make a donation rather than paying the full visitor fees when visiting.	MI10/01

Operational Objective 14: Promote the use of the reserve for the demonstration of low intensity agriculture and conservation management primarily to the agricultural community.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
14.1 Maintain the working farm, with back-up land, stock and farm infrastructure.	To take advantage of the unique opportunity to demonstrate the interface of conservation with low input farming, the working farm will need to be maintained. Records of current and historical management events should be made. See operational objectives 1 and 7.	
14.2 Provide facilities for guided group visits.	Groups will be transported by tractor and trailer, mini-van or landrover, and guides/drivers will be provided. A charge will be made.	MI10/01 MM00/01
14.3 Encourage visits by targeted groups.	Maintain and develop contacts with farming groups and agricultural colleges. Invite these to visit where appropriate.	MI10/01
14.4 Provide leaflets and display material.	A visitor guide, display boards and special interest leaflets need to be produced and maintained.	MI50/01

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Operational Objective 15: Encourage research by suitable organisations and individuals outside NCC.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
15.1 Make contacts with educational and research establishments.	Write to educational and research establishments encouraging research from undergraduate studies upwards.	ML80/03
15.2 Suggest appropriate research projects and maintain a research register.	Draw up a list of projects on the reserve requiring research. Maintain a register of research already carried out.	RH30/01

Operational Objective 16: Provide limited facilities for visits by conservation organisations and interested individuals.

OUTLINE PRESCRIPTION	PRESCRIPTIVE DETAIL	PROJECTS
16.1 Provide facilities for guided group visits and open days.	Although a lower priority than 14 the demand for visits by conservation groups can be met to a limited extent. 1 or 2 open days per year should be organised for individuals. The booking procedure, transport and interpretive provisions will be similar to 14.2. A charge should be made towards costs.	MI10/01 MM00/01
16.2 Provide leaflets and display materials.	A visitor guide, display boards and special interest leaflets need to be produced and maintained.	MI50/01

Table 3.1.1.a Grazing Pressures on Parts of Parsonage Down NNR

May 1983-Apr 1984	CASTLE DOWN	PARSONAGE BANK	100 ACRES	NOMANS LAND
LU Weeks/Ha TOTAL	29.43	36.7	28.5	51.2
LU Weeks/Ha CATTLE	24.02	23.2	17.0	41.0
LU Weeks/Ha SHEEP	5.40	13.4	11.4	10.1
% CATTLE GRAZING	82	63	60	80
% SHEEP GRAZING	18	37	40	20
LU/Ha TOTAL	0.37-0.65	0.2-1.34	0.07-0.92	0.6-1.54
LU/Ha CATTLE	0.37-0.55	0-0.68	0-0.46	0.6-1.12
LU/Ha SHEEP	0-0.15	0.16-0.85	0-0.44	0-0.42

NB 1. In a high input system on good quality land rates of 2.47 LU/Ha, 1 dairy cow/acre (128 LU wks/ha), are achievable. Improved downland would probably be lower.

2. The calculations do not take into winter feeding which could increase stocking by c $\frac{1}{4}$.

Project Register

Code Project Title

RECORDS

Archive

RV10/01 Collect photographs, ground.
RV20/01 Collect photographs, aerial.

Flora

RF03/01 Collect data, vegetation (general)
RF13/01 Collect data, trees/shrubs (monitor gorse)
RF22/01 Collect data, other vascular plants (distribution maps)
RF23/01 Collect data, other vascular plants (permanent quadrats)
RF23/02 Collect data, other vascular plants (restricted spp)
RF23/03 Collect data, other vascular plants (sward height)
RF25/01 Collect data, other vascular plants (recolonisation)

RF32/01 Collect data, bryophytes
RF62/01 Collect data, fungi

Fauna

RA03/01 Collect data, mammals
RA13/01 Collect data, birds (general)
RA15/01 Collect data, birds (stone curlew)
RA43/01 Collect data, lepidoptera (general)
RA45/01 Collect data, lepidoptera (Adonis blue)
RA85/01 Collect data, other invertebrates

Human Impact

RH30/01 Collect data, public use, research
RH70/01 Collect data, public use, undesirable activities
RH80/01 Collect data, management, by owners (stocking rates)

MANAGEMENT

Wardening Information

MI10/01 ✓ Inform visitors, general
MI50/01 ✓ Provide interpretative material

Liaison

ML30/01 ✓ Liaise neighbours
ML40/01 ✓ Liaise local/national authorities
ML60/01 ✓ Liaise emergency services (Police)
ML80/01 ✓ Liaise others (Longhorn Society)
ML80/02 ✓ Liaise others (Stock dealers, markets)
ML80/03 ✓ Liaise others (educational/research establishments)
ML80/04 ✓ Liaise others (Archaeologists)

Patrol

- MP00/01 Protect site/species by patrol

Estate - Habitat Management

- MH00/01 ✓ Manage habitat, woodland/scrub by coppicing
MH01/01 ✓ Manage habitat, woodland/scrub by planting
MH06/01 ✓ Manage habitat, woodland/scrub by enclosure
→ MH10/01 ✓ Manage habitat, grassland by controlled grazing (downland)
- MH10/02 ✓ Manage habitat, grassland by controlled grazing (semi-improved land)
→ MH10/03 ✓ Manage habitat, grassland by controlled grazing (back-up land)
→ MH12/01 ✓ Manage habitat, grassland by mowing (hay-making)
→ MH13/01 ✓ Manage habitat, grassland by sowing wildflower seed
MH16/01 Manage habitat, grassland by exclosures
→ MH19/01 ✓ Manage habitat, grassland by other activities (harrowing, fertilising, manuring)
MH19/02 ✓ Manage habitat, grassland by other activities (ploughing and re-seeding leys)
MH19/03 ✓ Manage habitat, grassland by other activities (encouraging reversion of semi-improved land)
MH62/01 Manage habitat, open water by plant introduction
MH64/01 Manage habitat, open water by clearing
MH69/01 ✓ Manage habitat, open water by other activities, dew pond restoration
MH69/02 ✓ Manage habitat, open water by other activities, fencing

Estate - Species Management

- MS10/01 ✓ Manage species, other vascular plant (Gentianella anglica)
→ MS10/02 ✓ Manage species, other vascular plant (notifiable weeds)
MS30/01 ✓ Manage species, mammal (pest control)
MS40/01 ✓ Manage species, bird (nest boxes)
MS40/02 ✓ Manage species, bird (stone curlew)

Estate - Fabric

- ME10/01 ✓ Protect site by maintaining boundary structures
ME20/01 Equip site by providing other structures (bull pen, isolation boxes)
→ ME30/01 ✓ Equip site by maintaining other structures (farm buildings)
→ ME30/02 ✓ Equip site by maintaining other structures (water supply)
→ ME70/01 ✓ Equip site by maintaining road (access drive)

Estate - Grazing Stock

- MG00/01 ✓ Husband grazing stock, cattle (calving, tagging, castrating)
MG00/02 ✓ Husband grazing stock, cattle (medication, routine testing)
MG00/03 ✓ Husband grazing stock, cattle (bulling)
MG00/04 ✓ Husband grazing stock, cattle (winter feeding)
MG00/05 ✓ Husband grazing stock, cattle (purchases/sales)
MG00/06 ✓ Husband grazing stock, cattle (in-winter calves)

MG10/01 ✓ Husband grazing stock, sheep (lambing)
MG10/02 ✓ Husband grazing stock, sheep (medication)
MG10/03 ✓ Husband grazing stock, sheep (tupping)
MG10/04 ✓ Husband grazing stock, sheep (winter feeding)
MG10/05 ✓ Husband grazing stock, sheep (purchases/sales)

Estate - Machinery

MM00/01	Acquire/service vehicles ✓
MM10/01	Acquire/service machinery ✓
MM20/01	Acquire/maintain tools/equipment ✓

ADMINISTRATION

Planning

AP50/01	Prepare plan, hazards
AP60/01	Prepare plan, annual work
AP80/01	Convene meeting, Annual Programme Review

Inspection

AI30/01	Implement inspection, site, safety
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Reports

AR20/01	Prepare report, annual progress
AR30/01	Prepare correspondence, general
AR50/01	Record financial details
AR60/01	Prepare report, other (livestock movements for MAFF)

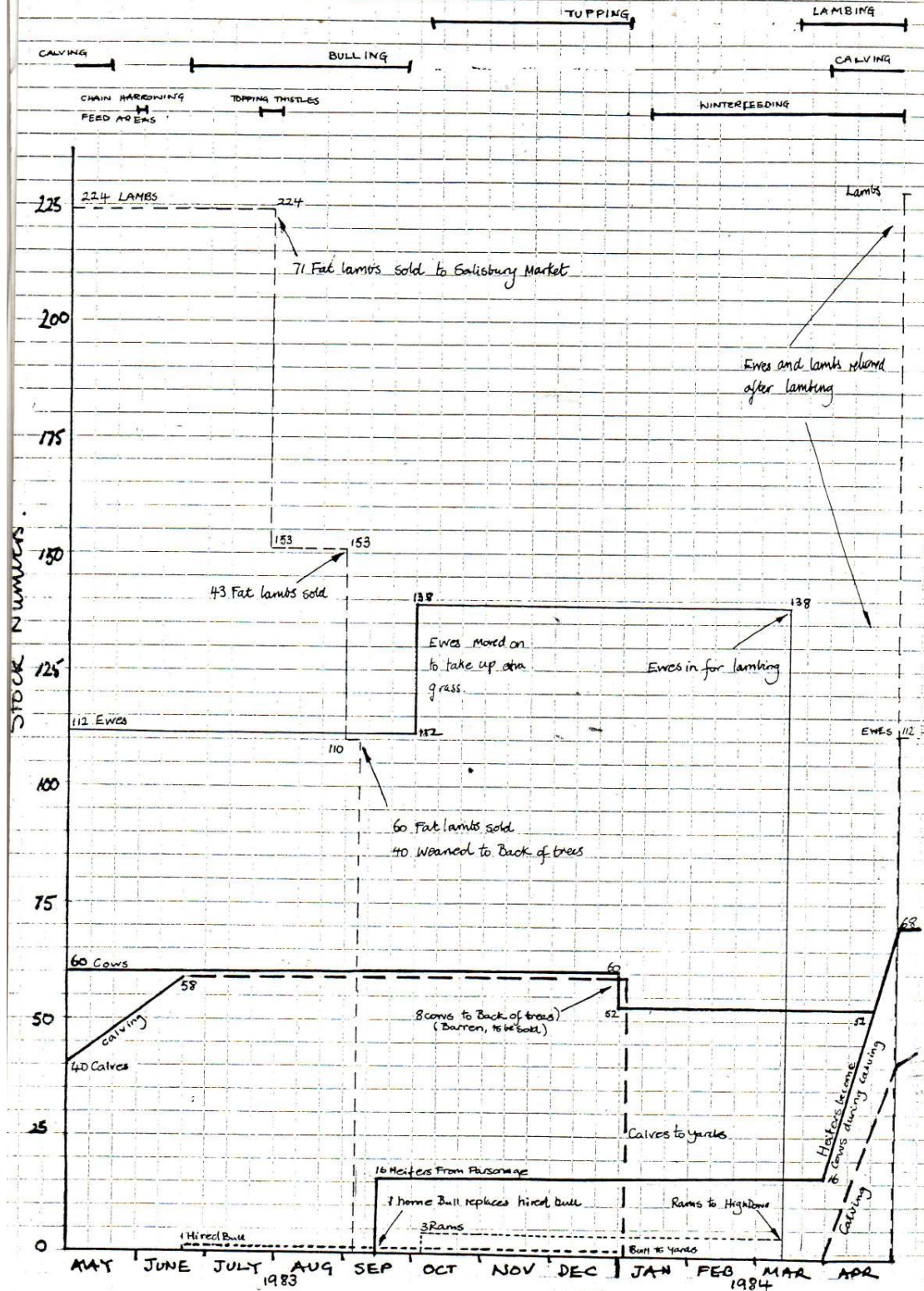
Training and Management

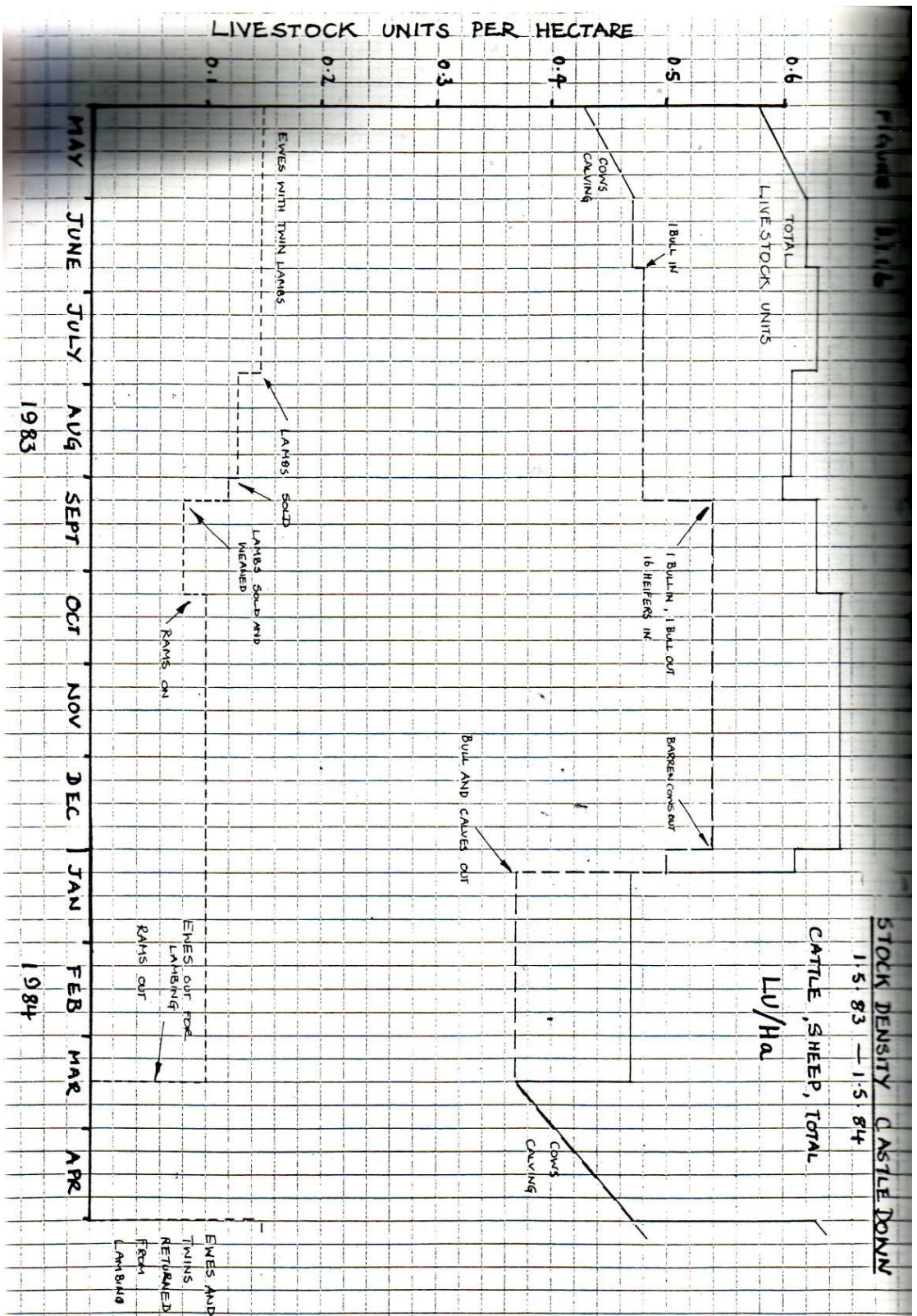
AT20/01	Train staff, use of machinery and equipment
AT30/01	Train staff, other (safety procedures)
AT50/01	Liaise voluntary wardens

FIGURE 3.1.1a Stock movements and Management
Castle Down May 1983 to MAY 1984

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ANNEX 3.1.1





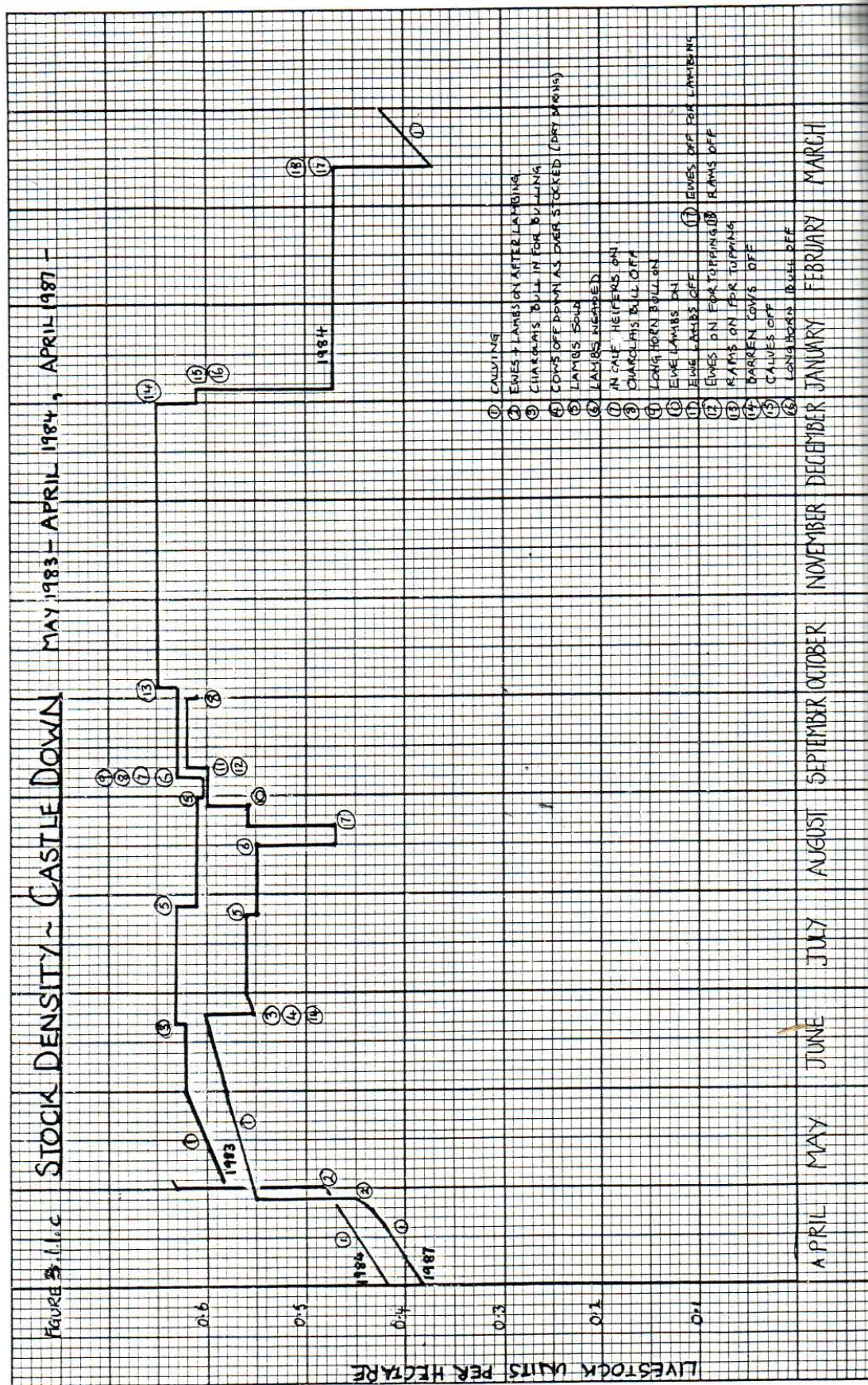


Figure 3.11.d BREEDING CATTLE

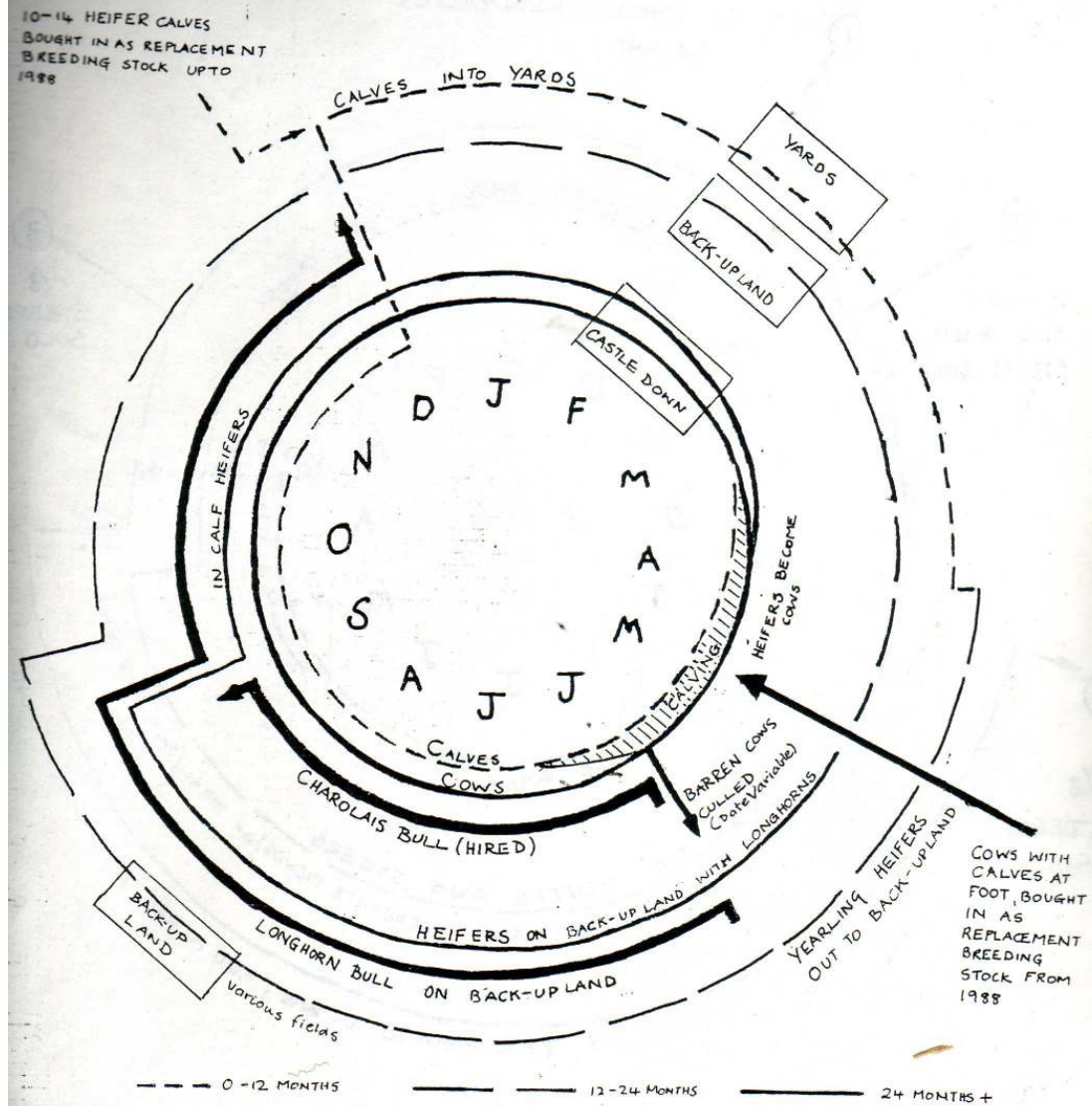
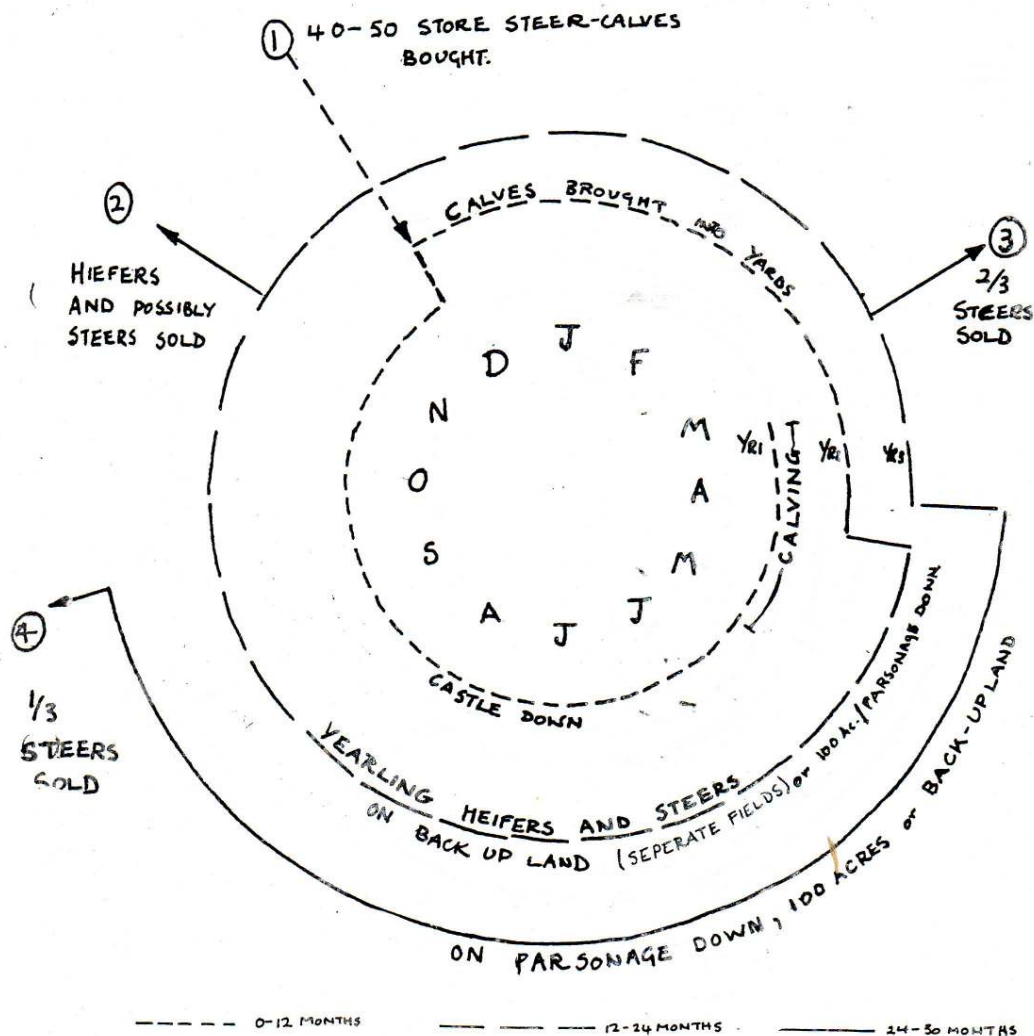


Figure 3.1.1.2

STORE CATTLE PRODUCTION



1. EARLY DECEMBER 40-50 Charolais x Shorthorn, store steer-calves bought in to take up slack in grazing. They join home produced calves in yard.
2. NOVEMBER. All Yearling heifers sold (except for the 10-14 breeding replacements). Possible steer sales if, a) Market bouyant b) poor haymaking c) little grazing on the farm.
3. MARCH. Two-thirds of larger and older steers sold at 18-22 months old.
4. SEPTEMBER/OCTOBER. Remaining one-third of the steers sold c 27-29 months old.

