

A glossary of livestock and equine terms*

Aftermath. Grass regrowth after the cutting of a crop of hay or silage which can subsequently be used for grazing or a second grass crop.

Allotment. Pasture taken in and fenced from hill or moor.

At foot. With suckling offspring.

Autumn fly. A non-biting fly which irritates cattle by feeding on nose, eyes and open wounds.

To back, to cast. To get on its back and be unable to rise.

Bag. Cow's udder.

Bag-up. Enlargement of udder prior to birth.

Bane. Liver fluke.

Barren cow. A female incapable of producing offspring due to infertility or sterility.

Barren ewes. Ewes without a lamb, but not necessarily incapable of producing a lamb in the following year.

Beestings. Colostrum.

To belt, to dag. To clean out with shears.

Belt. Sheep scab.

Bite. Grazing fresh grass growth.

Blackleg (Blackquarter). Bacterial infection of the leg muscles of cattle and sheep which in severe cases can lead to death.

Blast. See Bloat.

Bleb. Tapeworm cyst as in Gid.

Blindquarter. Non-functional udder.

Bloat. Build-up of gas in the rumen which can lead to asphyxia or shock in cattle. Often occurs in the grazing of lush pastures with a high clover content.

Boost. Instrument for marking sheep (usually with hot tar), often bearing the owner's initials.

Bot/Bots. Caused by adults and larvae of bot flies (*Gastrophilus* spp.). Can result in loss of condition and intestinal blockages in horses. The adult flies deposit eggs on different parts of the horse depending on the species and the larvae are found in various parts of the alimentary tract.

Bound stock. Sheep acclimatised to a hirsell.

Bovine. Pertaining to members of the ox genus (*Bos*). Principally used in relation to domesticated cattle.

Bovine Spongiform Encephalopathy (BSE). A fatal brain disease of cattle first recognised in 1986. Thought to be caused by a prion: a self-replicating infectious protein.

Braxy. A disease causing sudden death of young sheep caused by a bacterium. Predisposing cause is eating of frosty food which damages the wall of the abomasum hence allowing the organism to invade.

Breeding-in-and-in. In-breeding.

Broken-mouthed. Some teeth missing (sheep).

Broken horse. A horse trained to the saddle or bridle.

Buisted. Marked (eg with tar) after shearing.

Bull. An uncastrated adult male bovine animal.

Bull beef. Beef from entire male animals.

Bull calf. Male at birth.

* Some of the terms listed may not be in universal use across the UK and may only be used in particular geographical areas

Bulling. Oestrus (heat). Time during which a cow will stand to be mounted by a bull.

Bullock. A castrated male (bull).

Bullock calf. Male castrated at birth.

Cade. Handreared lamb.

Carcase Classification Scheme. EEC system for describing meat carcasses in terms of shape (conformation) on a scale E (excellent), U, R, O and P (poor) and fat cover S (obese) to O (skeletal).

Cast ewes. Old breeding ewes which are sold off hill farms to lower ground farmers who take one more crop of lambs off them.

Cild. A female incapable of producing offspring due to infertility or sterility.

Clarts. Dung attached to fleece.

Clatting. Removing wool from inside of thighs and around udder prior to lambing, also clag.

Claveau. Sheep pox.

Cling. Diarrhoea.

Colic. A general term applied to symptoms of abdominal pain from a variety of causes especially in horses.

Colostrum. First milk available for suckling offspring rich in protective anti-bodies for disease protection.

Colt. A young male horse less than four years old.

Condition. Degree of fatness of sheep/cattle assessed by 'condition scoring' (O = skeletal, S = obese).

Conformation. Quality and distribution of meat on the carcass, ie physical shape of live animal.

Cossett lamb. A hand-reared lamb.

Couples. Ewes and lambs or twins.

Cow beef. Beef from culled cows.

Crones. Old ewes, often broken-mouthed.

Crutching. See Clatting.

Crues. Sheep folds.

Crush. A narrow passage which can be sealed in front of and behind an animal for inspection purposes.

Cuckoo lambs. Lambs born after middle of April (late-born lambs).

Cull lambs/ewes. Small unhealthy or poorly conditioned lambs and ewes removed from the flock and sold for meat.

Dagging. Removing soiled fleece from around the udder or inside thighs.

Daggings. See Clarts.

Dam. The mother of an animal.

Diamond ram, Dinmont ram, Dinmont tup ram. Shearling ram.

Dipper. Dipbath.

Dipstick. Stick for measuring bath contents.

Double-suckling. A method of feeding beef cattle in which a second calf is introduced and allowed to suckle alongside a cow's own newborn calf.

Down-calver. Cow or heifer ready to give birth.

Draft ewes. Each year older ewes (generally four or five shear) in hill and mountain flocks are 'drafted for sale to semi-lowland and lowland farms. The change increases ewe fertility and milk yield, because of improved nutrition, and a high proportion of twin lambs may be expected. Draft hill ewes are crossed with Longwool rams to produce halfbreeds (eg the North Country Mule from Swaledale ewes put to a Bluefaced Leicester tup).

To draw lambs. To assist in delivery.

To draw ewes. To select for making up groups.

To dock. To cut the tail.

Double. Twins.

Dry cow. A cow not producing milk.

Dunt. See Gid.

Eadish, Eddish. See aftermath.

To Ean, to Yean. To give birth to a lamb.

Eild or Yeld ewes. Barren ewes.

Entire. An uncastrated male horse of five years of age or more.

Enzootic Bovine Leukosis (EBL). A virus-produced form of cancer. In Britain, the EBL affected herds scheme was introduced by MAFF to encourage the establishment of EBL-free herds as a step towards eradication of the disease. A notifiable disease.

Euk, Suint, Yokr, Yolk. Yolk (yellow soap material secreted by the skin into the fleece).

Ewe. An adult female sheep.

Faggs. Ticks.

Fank. Sheep pens.

Farrow. A term for a cow or heifer not in calf or a female incapable of producing offspring due to infertility or sterility.

Filly. A young female horse between one and four years of age.

Finished. Term applied to animals which have been fattened and are ready for sale at market.

First-calf heifer (or cow heifer). Female prior to birth of a second calf.

Flushing. Raising the level of ewe nutrition just prior to mating to improve condition, thereby increasing the rate of conception and lambing percentage. Hill and mountain ewes are usually gathered onto enclosed land at this time.

Flyblown. Fleece laden with blow-fly eggs.

Flystrike. (sheep maggot fly) blow-fly larvae bore into flesh causing condition termed strike.

Foal. A young horse in its first year.

Foggage, Fog. Grass regrowth on swards managed for hay or silage. Provides autumn/winter grazing for livestock (see also aftermath).

Followers. Young livestock (sheep, cattle) including calves and lambs run with the herd or flock.

Foot and mouth. Contagious viral disease of cattle, sheep and goats causing fever and blistering in the mouth and on feet leading to loss of condition and lameness. A notifiable disease.

Foot-rot. A disease of sheep caused by a bacterium. It is favoured by wet weather and soil which cause softening of the feet.

Full mouthed. Male/female sheep after the eight incisor teeth have grown.

Gadfly. Blood-sucking fly which attacks livestock in summer causing distress.

Geld ewe. Seen barren ewes.

Gelding. A castrated horse.

Gentles. Maggots.

Gid. A disease of sheep and cattle characterised by dizziness or staggering caused by tapeworm cysts in the brain membranes.

Gig. Gid.

Gimmer. A female sheep from weaning to shearing (6-15 months).

Glags. See Clarts.

Goggles. Gid.

Grass sickness. A disease of horses which occurs after they are put onto grass between April and September. The disease can be fatal and recovery is uncommon. Causes are not fully understood but may include a virus, a fungal toxin or environmental or physical (trauma, disease) stress.

Grass staggers/Grass tetany. A disorder of sheep and cattle resulting from magnesium deficiency which causes staggering and in advanced stages paralysis and convulsions.

Haggerill heeder. Ram lamb.

Hammel. Some sort of small shed, ram lamb.

Hand. A unit of measurement for the height of a horse as measured from the ground to the withers. A hand is four inches.

Hefted (Heft). The territory or home range of a flock of sheep in unenclosed hill and mountain pasture. The flock tends to remain in its own territory distinct from that of adjoining flocks.

Heifer. A cow more than one year old which has not calved.

Hereford disease. See grass staggers.

Hirsel. Piece of ground and flock looked after generally by one shepherd (about five hefts in each hirsel).

Hog, Hogg, Hoggerel, Hogget. A male or female sheep between being weaned and shorn for the first time (6-15 months).

Hoose. Infection of the bronchial tubes of cattle by the lungworm causing coughing and loss in body condition.

Hoven. See bloat.

Husk. See hoose.

Inbye. Enclosed fields, often near to the farm buildings, improved by drainage and fertilisation in hill and upland areas.

In-calf heifer. Pregnant female.

Intake. Pasture taken in and fenced from hill or moor.

Johne's disease. Bacterial disease of cattle characterised by severe inflammation of intestines, diarrhoea and resulting in loss of condition.

Joint-felon, joint-ill. See navel-ill.

Kades, Kaid, Keds. Blood sucking fly parasitic on sheep.

Keel. See raddle.

Laid sheep. Sheep which have been salvaged.

Lamb. Male or female sheep birth to weaning (0-6 months).

Lambing percentage. Number of lambs born and reared per 100 ewes put to the ram.

Laminitis (horses). An inflammation of the hoof causing lameness which is most common in ponies and in overweight/unfit horses. It can be a serious disease particularly when acute or chronic. It probably has a range of causes, eg dietary or it may be activated following another illness.

Leaf. A disease of lambs.

Lear. See heft.

Liverfluke. Parasitic flatworm infesting liver of sheep and cattle causing serious loss of condition. Parasite dependent on a snail which inhabits wet pastures.

Livestock unit (LU). See Chapter 5.

Louping-ill. A paralytic disease of sheep and cattle transmitted by a tick *Ixodes ricinus* commonly present on hill pastures in northern Britain.

Lugmark. Ear mark.

Lunky. A hole in a wall large enough to admit one sheep at a time. (See Smout.)

Maid. A ewe teg that has been to the ram but has proved barren.

Maiden heifer. Unmated female cow.

Mare. An adult female horse of five years of age or more.

Mastitis. Inflammation of the udder of dairy cattle and sheep caused by a bacterium.

Milk fever. Disease of dairy cows associated with calcium deficiency after calving.

Milk tetany. See grass staggers.

Mud fever. A skin infection of horses caused by a bacterium. It often follows prolonged wetting of an animal, for example grazing damp/wet pasture.

Multiple suckling. A system of managing cattle in which dairy breed nurse cows are used to suckle several beef calves at a time.

Navel-ill. Bacterial disease of young livestock characterised by abscess formation at the navel and limb swellings.

Navicular syndrome. Degeneration of the navicular bone in horses which causes lameness. The cause is not fully understood.

New Forest disease. Infectious bovine keratoconjunctivitis (IBK). A group of eye diseases of cattle which can lead to impaired vision or blindness if left untreated. A variety of agents are known to cause the disease and include bacteria, viruses, fungi and worms.

Orf. A virus infection of sheep causing scabs on the skin. Also contagious to humans.

Parrot-mouthed. Malformation of the mouth.

Paterish. Gid.

Pendro. Gid.

Pink-eye. New Forest disease.

Pine/Pining disease. A disease of sheep which leads to wasting caused by a deficiency of vitamin B₁₂ due to a lack of cobalt in the diet.

Pinning. Scouring.

Poll. To de-horn an animal.

Polled. Term for animals naturally lacking in horns.

Pony. A small horse not more than 13 or 14 hands high.

Pug. Hogg.

Pinds. Sheep folds.

Raddle, reddle, ruddle. Colour applied to rams' chests at tupping to show which ewes have been covered.

Raett. Fold for sheep.

Ram. An uncastrated adult male sheep.

Ray. Sheep scab.

Redwater. Tick borne parasitic disease of cattle. Organisms are especially associated with rough grazing, scrub, heathland or woodland where vector is present.

Rounds. Circular walls built to protect sheep from snow drifts.

Rowen. See aftermath.

Rubbers. Sheep scab.

Salving, Smearing. Treating sheep with a mixture usually tar and butter, to protect against cold (or parasites).

Scrapie. Virus disease of sheep which affects the nervous system. Transmitted from dam to progeny.

Scour/Scouring. Diarrhoea in livestock often a symptom of a variety of diseases.

Set-to. An orphan lamb given to a foster mother.

Shab. Sheep scab.

Shearling. A young sheep between its first and second shearing. (one year three months to two years three months.)

Sheeder. Female lamb.

Sheep louse. See kades.

Sheep scab. Disease (mange) caused by a parasitic mite.

Sheep pox. Contagious viral disease of sheep resulting in a severe loss of condition. A notifiable disease.

Shippen. Barn for in-wintering cattle.

Shots. Culls or small lambs.

Shuttle-cobbed. Malformation of the mouth.

Sire. The father of an animal. Also to beget offspring as the father.

Smout. Hole in a wall large enough to admit one sheep at a time (see Lunky) also sheep creep.

Sock (Lamb). A hand reared lamb.

Spiv ewe. A ewe in low condition that will not fatten.

Staggers. Gid.

Stallion. An uncastrated male horse of five years of age or more.

Steer. A castrated male bovine animal more than one year old.

Stell. Circular stone wall, roofless shelter.

Stells. Circular stone wall, roofless shelter (Northumberland).

Stirk. Term used in Scotland for male and female cattle less than two years of age. In England, it only applies to females less than two years of age.

Store cattle (stores). Animals kept on a low level of growth for later fattening or sold for fattening.

Store lambs. Lambs requiring finishing (fattening) on lowland pasture prior to slaughter.

Sturdy. Gid.

Suckler cow. A cow which is allowed to rear its own calf which is then used for beef production (suckler beef).

Swale. To winter burn grassland or heathland.

Swayback. A disease of the nervous system of lambs caused by copper deficiency.

Sweet itch. An inflammation of the skin of horses caused by sensitivity to the bites of midges. It often affects obese ponies at grass which are suffering from the early stages of laminitis.

Tag. Sheep scab.

Teg. Hogg.

Terminal sire. Breed of ram mated with crossbred ewes on lowland farms to produce slaughter lambs.

Theave. A castrated male sheep between its first and second shearing (one year three months to two years three months).

Three-shear. Third to fourth shearing sheep three years three months to four years three months.

Thrunter. Three-year-old ewe.

Thorter ill. Gid.

Top. To cut grass sward or selected plant species to favour growth of palatable shoots or for weed control.

Tup. Ram.

Tupping season. Mating season.

Turn. Gid.

Turnsick. Gid.

Twin lamb disease. Metabolic disorder of pregnant ewes carrying more than one lamb. Due largely to insufficient nutrition.

Twinter. Two year old ewe.

Two-shear. Second to third shearing sheep two years three months to three years three months.

Under-Hung. Malformation of the mouth.

Vanquish, Vinqvist. Pining or pine disease.

Veal. Flesh from calves slaughtered at less than 15 weeks old.

Warble fly. Larvae of warble fly feed under skin of cattle reducing the value of meat and hide. Notifiable disease, almost extinct.

Wether, Wedder. A castrated adult male sheep.

Wicks. Maggots.

Withers. The ridge between the shoulder blades of a horse: its highest part.

Worms. A generic term for a range of parasitic worms of livestock and horses which live in various parts of the animal but particularly the digestive system and respiratory tract (eg roundworms, gutworms, lungworms). They can lead to a range of diseases and overall loss of condition.

Wrees. Gathering pens (SW Scotland).

Yearling. An animal between one and two years of age.

Yel or Yale Ewe. South Scotland term for barren ewe. (See also Eild or Yeld ewe.)

Yeld cow. A cow not producing milk.

Yo. See ewe



References and further reading (for Annex 1)

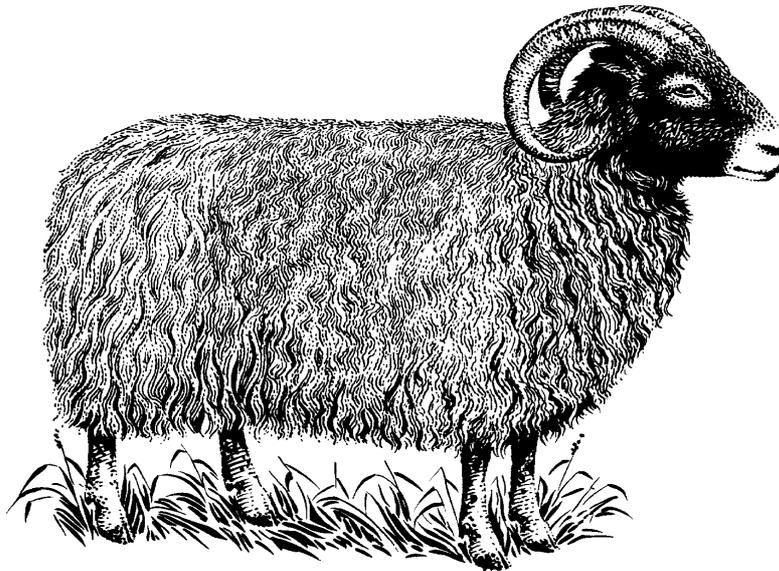
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Annex 2A

Chemical control of thistles, docks, ragwort and nettle in agricultural grassland

Products containing Mecoprop (not clover safe)

Active ingredient(s)	Docks <i>R. crispus</i>	Docks <i>R. obtusifolius</i>	Ragworts	Thistles	Perennial nettle	Source
1. Bromoxynil/ioxynil/mecoprop +	MR	MR	-	-	-	Product guide
2. Low dose dicamba/MCPA/mecoprop	S(SD)	S(SD)	R	(S(SD))	MS	Product guide
3. High dose dicamba/MCPA/mecoprop	MS(MP) S(MP)	MS(MP) S(MP)	R	MS(MP) MS(MP)	S-MS	Product guide
4. Low dose dicamba/mecoprop	S(SD) MS(MP)	S(SD)	MS	(S(SD))	MS	*Scentless only Product guide
5. High dose dicamba/mecoprop	MS/S(MP)	MS/S	-	MS/S	MS	Product guide & Microherb
6. Dicamba/mecoprop/tricopyr	S(MP)	S	-	MS	S	Product guide
7. Mecoprop (P-isomer)	S(SD) MS(MP)	S(SD) MS(MP)	-	S(SD) MS(MP)	- -	*Scentless only Product guide
8. Mecoprop (racemic mix)	S(SD) MR(MP)	S(SD) MR(MP)	-	S(SD) MS(MP)	S(SD) MS(MP)	*Scentless only WCH
9. Mecoprop/2,4-D	S(SD) MS(MP)	S(SD) MP(MP)	S	S(SD)	-	Scentless only product guide & Microherb
10. Mecoprop/dicamba/2,4-D (Rough grazings)	S	S	S	S	S	Microherb

+ Do not apply with hand-held equipment or at less than recommended volumes

Chemical control of thistles, docks, ragwort and nettle in agricultural grassland

Products NOT containing Mecoprop (but may still not be clover safe)

Active ingredient(s)	Docks <i>R. crispus</i>	Docks <i>R. obtusifolius</i>	Ragworts	Thistles	Perennial nettle	Source
11. Asulam	S(MP)	S(MP)	R	R	R	Microherb
12. Benazolin/ioxynil/bromoxynil +	S(SD)	S(SD)	-	-	-	Product guide
13. Benazolin/2,4-DB/MCPA	MS	MS	R	MS	?	ADAS pers. comm.
14. Clopyralid	R	R	-	S	**	Microherb
15. Clopyralid/triclopyr	S	S	S	S	S	Product manual and experience
16. Clopyralid/fluroxypyr/triclopyr	S	S	-	S	S	ADAS pers. comm.
17. 2,4-D	S(SD) MS(MP)	S(SD) MR(MP)	S ^{*1}	S(SD) MS(MP)	MS	*Scentless only WCH
18. Dicamba/triclopyr/2,4-D	S(MP)	S(MP)	MS	S	S	Product guide
19. 2,4-D (= Dichlorprop salt)	-	S	-	S(SD)	-	Produce manual
20. Fluroxypyr	S(SD)	S(SD)	-	R	S	Microherb
21. Fluroxypyr + MCPA	S(SD)	S(SD)	S	(S(SD))	S ^{**}	Composite of product guides **according to rate
22. Glyphosate (selective app)	S(MP)	S(MP)	S	S	S	If satisfactory height differential
23. Glyphosate (overall)	S	S	S	S	S	Microherb
24. MCPA	S(SD) MS(MP)	S(SD) R(MP)	S ^{*1}	S(SD)	MS	Microherb WCH
25. MCPA/MCPB	S(SD) MS(MP)	MR	R ^{*2}	S(SD) ^{*3}	-	Product manual
26. MCPB	S(SD) MS(MP)	S(SD) R(MP)	R ^{*2}	S(SD) ^{*3} MS(MP) ^{*3}	-	Product manual WCH
27. Triclopyr	S(MP)	S(MP)	R ^{*2} (MP)	-	S	Microherb
28. Triclopyr/Fluroxypyr	S(MP)	S(MP)	?	?	?	Product guide

+ Do not apply with hand-held equipment or at less than recommended volumes

Key to Annex 3

- S = Consistently good control - both shoots and roots
- MS = Aerial growth usually killed and a useful measure of long-term control obtained under suitable conditions
- MR = Variable effect on aerial growth, appreciable long-term control unlikely
- R = No useful effect
- (1) Top growth killed only
- (2) Foliage killed and serious depletion of root stocks
- (3) Kills shoots and some roots
- (4) Repeat applications may be necessary in severe infestations and with long established plants
- (5) Use rate for dock control
- (6) Useful suppression claimed
- (7) Use high rate
- (8) Seedlings up to two leaves
- * Ex-weed control handbook (Fryer & Makepeace 1978)
- ** Although no label claim is made for ragwort control, extra care should be taken with livestock following the use of Grazon 90 since a high proportion of ragwort plants will be killed
- *** Refers to products containing a high dose of dicamba



Susceptibility of agricultural weeds to herbicides in established grassland *(check crop tolerance to herbicide on product label)

	Bracken	Buttercup -bulbous	Buttercup - creeping	Buttercup - meadow	Cat's ear	Chickweed - common	Daisy	Dandelion	Dock Broad-leaved	Dock Curled (est)	Hawkbit, autumn	Horsetails	Knapweed - common	Meadowsweet	Nettle - common	Plantain	Ragwort - common	Rush - compact*	Rush - hard*	Rush - heath*	Rush - soft*	Selfheal	Sorrel - common	Sorrel - sheeps	Sowthistle - perennial	Thistle - creeping (est)	Thistle - dwarf (est)	Thistle - spear	Wild onion	Yarrow	Yellow rattle*
Asulam	S	-	-	-	-	-	-	-	S (4)	S (4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
benazolin + 2, 4-DB + MCPA	-	R	S	-	-	S	R	MR	MS	MS	-	MS (1)	-	-	MS (1)	S	R	-	-	-	R	-	-	-	MS (1)	MS	-	MS	-	-	-
clopyralid + fluroxypyr	R	-	-	-	-	S	-	S	S	S	-	-	-	-	S	-	-	-	-	-	-	-	-	-	S	S	-	S	-	MS	-
clopyralid + MCPA (tank mix)	R	MR	MS	MS	MS	MS	MS	S	MS	MS	MS	-	MS	-	-	S	MS	-	-	-	MS	MR	MS	MS	S	S	MS	S	-	MS	-
clopyralid + triclopyr	-	MR (6)	MR (6)	MR (6)	-	-	S	S	S (4)	S (4)	-	-	MR (6)	-	S	S	**	-	-	-	-	-	-	-	MS (1)	MS (1)	S	S	-	S	-
2, 4-D	R	MR	S	MS	MS	MR	MS	MS	MR	MS	S	MR	MS	MR	MS	S	MS	MS	-	-	MS	-	MS	MS	-	MS	-	MS	-	MR (6)	-
2, 4-D + dicamba mecoprop	-	-	-	-	-	-	-	-	S	S	-	-	-	-	S	-	S	-	-	-	-	-	-	-	-	S	S	S	-	-	-
2, 4-D + dicamba + triclopyr	R	MR	S (7)	-	-	-	MS	MS	S (7)	S (7)	S	R	-	-	S	S	MS (7)	-	-	-	S (7)	-	S	S	-	S	-	S	-	MS	-
dicamba + MCPA + mecoprop	-	MS	S	-	-	S	MS	MS	MS (2)	MS (2)	-	MS	-	-	MS (2)	S	MR	-	-	-	MS	-	-	-	MS (3)	MS (2)	-	S	R	-	-
dicamba + mecoprop ***	-	MR	MS	-	-	-	S	MS	S (2)	S (2)	-	MS	-	-	MS	S	MR	-	-	-	MS	-	S	-	MS	MS	-	MS	-	-	-

	Bracken	Buttercup -bulbous	Buttercup - creeping	Buttercup - meadow	Cat's ear	Chickweed - common	Daisy	Dandelion	Dock Broad-leaved	Dock Curled (est)	Hawkbait, autumn	Horsetails	Knapweed - common	Meadowsweet	Nettle - common	Plantain	Ragwort - common	Rush - compact*	Rush - hard*	Rush - heath*	Rush - soft*	Selfheal	Sorrel - common	Sorrel - sheeps	Sowthistle - perennial	Thistle - creeping (est)	Thistle - dwarf (est)	Thistle - spear	Wild onion	Yarrow	Yellow rattle*
dicamba + mecoprop + triclopyr	-	-	S	-	-	-	-	MS	S	S	-	MS (4)	-	MS	S	-	-	-	-	-	-	-	-	-	-	MS	-	MS	-	-	-
ethofumesate	-	-	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
fluroxypyr	-	-	-	-	-	S	-	S	S	S	-	-	-	-	S	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MCPA	R	MR	MS	MS	MS	MR	MS	MR	MR	MS	MS	MR	MS	MR	MR	S	MS	MS	MR	R	MS	MS	MR	MS	MS	MS	MR	S	MR	MR	MR
MCPB	R	MR	S	MS	-	R	MR	R	R	MR	MS	MR	-	R	MR	S	R	-	R	R	MR	-	-	-	MS	MS	-	MS	-	R	-
MCPA + MCPB	-	MR	S	-	-	-	-	R	MR	MS	-	MR	-	-	MR	S	R	-	-	-	MR	-	-	-	MR	MS	-	S	-	-	-
mecoprop	R	MR	S	MS	MS	S	S	MR	MS	MS	MS	R	-	-	MS	S	-	-	-	-	MR	-	R	R	MR	MS	-	MS	MR	MR	S*
triclopyr	-	-	S (5)	-	-	-	-	S (5)	S (4)	S (4)	-	MS (4)	-	S	-	R	-	-	-	-	-	-	-	-	-	R	R	R	-	-	-

Annex 4

Examples of approved** proprietary products of active ingredients

Active ingredient(s)	Trade name	Main supplier
asulam	Asulox	Rhone Poulenc
benazolin/bromoxynil/ioxynil	Asset	AgrEvo
benazolin/2, 4-DB/MCPA	Stefes Legumex Extra	Stefes
	Setter 33	Dow Elanco
bentazone/cyanazine/2, 4-DB	Topshot	Cyanamid
bentazone/MCPA/MCPB	Acumen	BASF
bromoxynil/ethofumesate/ioxynil	Leyclene	AgrEvo
bromoxynil/ioxynil	Deloxil	AgrEvo
	Oxytril CM	Rhone Poulenc
bromoxynil/ioxynil/mecoprop-P	Swipe P	Ciba Agric
carbetamide	Carbetamex	Rhone Poulenc
clopyralid/triclopyr	Grazon 90	Dow Elanco
clopyralid/fluroxypyr/triclopyr	Pastor	Dow Elanco
2, 4-D amine	Agricorn D	Farmers Crop Chemicals
	Atlas 2, 4-D	Atlas
	Dioweed 50	United Phosphorus
	MSS 2, 4-D Amine	Mirfield
	Syford	Vitax
2, 4-D esters (becoming more difficult to obtain)	BASF 2, 4-D Ester 480	BASF
	MSS 2, 4-D Ester	Mirfield
	Forester	Vitax
2, 4-D/dicamba/mecoprop	Wood and Brush Killer (New formula)	Vitax
2, 4-D/mecoprop	Sydex	Vitax
2, 4-DB/linuron/MCPA	Alistell	Zeneca
2, 4-DB/MCPA	Agrichem DB Plus	Agrichem
	Redlegor	United Phosphorus
	MSS 2, 4-DB + MCPA	Mirfield
dicamba	Tracker	PBI
dicamba/dichlorprop/MCPA	Intrepid	Miracle

** A pesticide product's approval status may change. Always check the most current source of advice (eg UK Pesticide Guide/MAFF/HSE Pesticides Reference Book.)

Active ingredient(s)	Trade name	Main supplier
dicamba/MCPA/mecoprop	Stefes Banlene Plus	Stefes
	Campbell's Grassland Herbicide	M T M Agrochem
	Stefes Docklene	Stefes
	Headland Relay	Headland
	Herrisol	Bayer
	Hyprone	Agrichem
	Hysward	Agrichem
	MSS Mircam Plus	Mirfield
dicamba/mecoprop	Pasturol	Farmers Crop Chemicals
	Di Farmon	Headland
	Endox	Farm Crop Chemicals
	Condox	Zeneca
dicamba/mecoprop/triclopyr	Hygrass	Agrichem
	Fettel	Zeneca
2, 4-DP (dichlorprop)	MSS 2,4-DP	Mirfield
fluroxypyr	Starane 2	Dow Elanco
glyphosate	Muster	ICI
	Roundup	Monsanto
	Roundup Four 80	Monsanto
	Sting CT	Monsanto
linuron	Afalon	AgroEvo
	Alpha Linuron 50 SC	Makhteshim
MCPA	Agricorn 500	Farmers Crop Chemicals
	Atlas MCPA	Atlas
	BASF MCPA Amine 50	BASF
	Campbell's MCPA 50	MTM Agrochem
	Stefes Phenoxylyene 50	Stefes
MCPA/MCPB	Bellmac Plus	United Phosphorus
	MSS MCPB + MCPA	Mirfield
	Trifolex-Tra	Cyanamid
	Tropotox Plus	Unicrop
MCPB	Bellmac Straight	United Phosphorus
mecoprop	Campbell's CMPP	MTM Agrochem
	Clenecorn	Farmers Crop Chemicals
	Hymec	Agrichem
mecoprop-p	Dulplosan	BASF
	MSS Optica	Mirfield
paraquat	Gramoxone 100	Zeneca
	Scythe LC	Cyanimid
propyzamide	Kerb 50W	PBI
	Kerb Flo	PBI
triclopyr	Garlon 2	Zeneca
	Timbrel	Dow Elanco
triclopyr/fluroxypyr	Doxstar	Dow Elanco

Useful addresses

ENGLISH NATURE (EN) Northminster House Northminster Road Peterborough PE1 1UA	01733 455000	THE WILDLIFE TRUSTS The Green Witham Park Waterside South Lincoln LN5 7JR	01522 544400
WELSH OFFICE AGRICULTURE DEPARTMENT (WOAD) Cardiff: Crown Buildings Cathays Park Cardiff CF1 3NQ	01222 825111	DEPARTMENT OF AGRICULTURE NORTHERN IRELAND (DANI) Countryside Management Division Room 552 Dundonald House Upper Newtownards Road Belfast BT4 3SB	01232 520100
Aberystwyth: Trawsgoed Aberystwyth Dyfed SY23 4HT	01970 612374	THE NATIONAL TRUST 33 Sheep Street Cirencester Gloucester GL7 1QW	01285 651818
THE COUNTRYSIDE COUNCIL FOR WALES (CCW) Plas Penrhos Ffordd Penrhos Bangor Gwynedd LL57 2LQ	01248 370444	THE ROYAL SOCIETY FOR THE PROTECTION OF BIRDS The Lodge Sandy Bedfordshire SG19 2DL	01767 680551
SCOTTISH NATURAL HERITAGE (SNH) 2/5 Anderson Place Edinburgh EH6 5NP	0131 447 4784	MINISTRY OF AGRICULTURE FISHERIES AND FOOD (MAFF) Nobel House 17 Smith Square London SW1P 3JR	0171 238 6000
COUNTRYSIDE COMMISSION Countryside Commission John Dower House Crescent Place Cheltenham Gloucester GL50 3RA	01242 521381	THE FARMING AND WILDLIFE ADVISORY GROUP (FWAG) The National Agricultural Centre Stoneleigh Kenilworth Warwickshire CV8 2RX	01203 696699
DEPARTMENT OF ENVIRONMENT NORTHERN IRELAND (DOENI) Environment & Heritage Service Commonwealth House 35 Castle Street Belfast BT1 1GU	01232 251477	SCOTTISH OFFICE AGRICULTURE AND FISHERIES DEPARTMENT (SOAFD) Pentland House 47 Robb's Loan Edinburgh EH14 1TY	0131 556 8400

THE BRITISH GRASSLAND SOCIETY
No. 1 Earley Gate
University of Reading
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RG6 6AT 01189 318189

THE RARE BREEDS SURVIVAL TRUST
The National Agricultural Centre
Stoneleigh
Kenilworth
Warwickshire
CV8 2LG 01203 696551

FARMING & RURAL CONSERVATION
AGENCY (FRCA)
Nobel House
17 Smith Square
London
SW1P 3JR 0171 238 5432

BUTTERFLY CONSERVATION
PO Box 444
Wareham
Dorset
BH20 5YA 01929 400209

DEPARTMENT OF THE
ENVIRONMENT, TRANSPORT AND THE
REGIONS
Tollgate House
Houlton Street
Bristol
BS2 9DJ 0117 987 8233

FLORA LOCALE LTD
36 Kingfisher Court
Hambridge Road
Newbury
Berkshire
RG14 5SJ 01635 550380

PLANTLIFE
21 Elizabeth Street
London
SW1W 9RP 0171 808 0100

BRITISH HORSE SOCIETY
British Equestrian Centre
Stoneleigh Deer park
Kenilworth
Warwickshire
CV8 2XZ 01203 696697

THE NATIONAL PROFICIENCY TESTS
COUNCIL
National Agricultural Centre
Stoneleigh
Kenilworth
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CV8 2LG 01203 696553

THE SOIL ASSOCIATION
Bristol House
40-56 Victoria Street
Bristol
BS1 6BY 0117 929 0661

Animal Welfare Code of Good Practice (read in conjunction with Chapter 5)

Introduction

Animal welfare, the human perception of factors which affect the health and well-being of animals, is a subjective issue and differences in interpretation will inevitably arise. This annex sets out an animal welfare code of good practice for the use of grazing livestock on sites managed by conservation bodies. It relates to the specific situation where animals are confined on land being grazed for conservation purposes as part of a planned grazing programme. This means that their health and well-being are ultimately controlled by the people managing the site. It does not apply to wild or feral animals that move freely on and off land without human control.

It is accepted and understood that conflicts may sometimes arise between the requirements for site management and the welfare needs of the grazing livestock. This policy provides guidelines for resolving or minimising such conflicts. Where neither result is possible the safeguarding of animal welfare must be given precedence over site management objectives.

Responsibility for animal welfare

- " Whenever livestock are used for grazing reserves their welfare must be the responsibility of a single named individual who is known by the managing conservation body to be a trained stockperson with experience of the type of stock being used.
- " If the stock are owned by the managing body their welfare should be the responsibility of a member of staff who must have received full and proper training before assuming livestock duties (preferably National Proficiency Test Council Craftsman Status). The duties of the staff appointee must be commensurate with the time available for carrying them out so that all stock can be properly checked at suitably frequent intervals and remedial action can be undertaken as soon as it is found to be required. The stock person must also be adequately resourced and equipped for carrying out all the foreseeable tasks associated with grazing stock in various situation (eg transportation, catching and handling, routine preventative health care, emergency treatment, care of sick or injured animals). An appropriately competent person should be appointed to cover for all contingencies when the stockperson is unavailable.
- " Where the stock are under separate ownership, being grazed under a licence, lease or other agreement, the person responsible for the animals' welfare will be the named licensee, lessee or agreement holder. The agreement should state that this responsibility lies with them alone.
- " The duty of the managing body in such cases is to do all in its power to ensure that the signatory is capable of caring for the animals in the situation in which it is proposed to graze them. Where doubts arise, consideration should be given to seeking independent outside advice (eg RSPCA).

" The stockperson (staff member or licensee) must be familiar with the contents of the MAFF Welfare Code relevant to the livestock species in their care, and should possess a copy to refer to when required. A managing conservation body may feel it appropriate to issue copies to new licensee graziers.

" Daily checking of livestock is recommended, but because of the remoteness of many nature reserves combined with their size, topography and dense cover, it is sometimes impracticable. The stockperson may therefore extend the interval between inspections of any one group of livestock once they have satisfied themselves that the welfare of the animals faces no immediate threats from the existing situation. Where this is the case it is recommended that signs be posted on the site giving the stockperson's telephone number for visitors to contact them in case of an emergency. Alternatively, local volunteers may be recruited to carry out more frequent inspections on behalf of the stockperson, although the latter would still be responsible for the well-being of the animals and would be expected to deal with emergencies, as well as continuing to visit them at whatever extended intervals are deemed appropriate.

Animal welfare guidelines

In all situations, conservation bodies would require stock on its reserves to be cared for according to the recommendation set out in the appropriate MAFF Welfare Code. Essentially this would require the safeguarding of the five "freedoms" - key provisions upon which the Welfare Codes are based.

- a. Freedom from hunger, malnutrition and thirst.
- b. Appropriate comfort and shelter.
- c. Prevention or rapid diagnosis and treatment of injury and disease.
- d. Freedom to display normal patterns of behaviour.
- e. Freedom from fear.

Conservation management nearly always requires extensive grazing, a system which itself poses few welfare problems since the animals subjected to it can usually choose between various options in order to meet most of their physical and behavioural needs. Using livestock for nature conservation, however, can still present welfare difficulties whenever aspects of their management conflict with these basic requirements:

a. malnutrition and thirst

The stockperson should at all times be aware of the nutritional status of animals in their care. Some types of stock may be reluctant to eat the coarse, unpalatable and less nutritious swards which conservation objectives often require to be grazed. In such situations the animals in question may only graze effectively if they are hungry. While it may be acceptable for animals to be hungry for limited periods, they must not be allowed to become malnourished by extended periods of inadequate nutrition.

The stockperson must therefore be able to assess and monitor the following:

- i. The quantity of vegetation available, its accessibility, palatability and nutritional properties.
- ii. Suitability of livestock - species, breed, age and general state of health and fitness.
- iii. Condition of livestock - amount of fat reserves stored in the animal's body. The Meat and Livestock Commission (MLC) have developed a standardised system for assessing the condition of cattle and sheep. The stockperson should be familiar with its use and be able to properly assess the condition of animals in their care. It is recommended that any animals which have a condition score less than two and which are continuing to lose condition should be removed to better pasture or provided with supplementary feed. It is important that body condition is assessed manually as well as visually. For species of grazer other than cattle and sheep the same principles should be applied, even though body condition has not been formalised into numerical scores.

Clean fresh water must be freely and safely available at all times using whatever means are appropriate for the type of livestock and their situation.

b. comfort and shelter

The physical condition on nature reserves can sometimes be harsh due to climatic exposure or extremes of topography and hydrology. Wherever adverse weather conditions prevail on sites of high elevation or lacking in structural features, they can present a severe challenge to the well-being of grazing animals. Such animals should be of species breeds and types that are adapted to these conditions, physiologically and behaviourally. Livestock that are not sufficiently hardy (eg most goats) must be provided with suitable shelters and, when necessary, alternative feeding arrangements.

When grazing wetland sites, animals must have access to areas that are not waterlogged in order to lie down when resting.

c. disease and injury

The stock person must be familiar with the symptoms of the diseases and parasites that may afflict animals in their care and be ready to treat them immediately with little or no delay.

The low stocking rates normally associated with conservation grazing help to minimise the contagious spread of certain diseases between individuals. Such diseases are only acquired from other animals, usually of the same species, and once the herd or flock is free of a particular pathogen, it will remain so until coming into contact with other animals outside the group that are infected eg sheep scab, ring worm. Other infections, however, are acquired from the animal's general environment and some of these may pose significant problems for livestock on nature reserves eg New Forest eye, clostridial bacteria, flystrike and footrot. The stockperson should be familiar with as wide a range of disease symptoms and their likely causes as possible and be prepared to deal with them without delay (see Chapter 5, sub-section 5.9.5).

Preventative measures are often an important aid to animal health (eg vaccination, routine use of anthelmintics, dipping etc) but cannot be relied on to provide complete protection. All treatment of animals with drugs and chemicals must be justifiable in terms of their actual welfare requirements and must be administered by appropriately qualified individuals who will also be responsible for keeping detailed veterinary records required by law. The stockperson should appreciate that there is no substitute for frequent and regular inspection of grazing livestock.

The stockperson should be aware of the various injuries and mishaps which can befall animals in their care and be able to identify potential hazards in the grazing environment (eg inadequate boundaries, precipitous cliffs, poisonous plants, uncontrolled dogs etc). Wherever possible or practicable, steps should be taken to avoid the risk to stock. Where such risks cannot be eliminated the grazing animals should be inspected more frequently so that in the event of their experiencing problems they can be given assistance as quickly as possible. Seriously ailing animals cannot sustain themselves by grazing and are more susceptible to adverse weather conditions. Facilities for treating such animals in isolation and shelter should be available at all times.

d. normal behaviour

Animals used in conservation grazing regimes should be able to move about freely within the boundaries of the reserve, unhindered by physical constraints such as hobbles, harnesses or yokes. Tethering of livestock may be justified as a temporary short-term method of containment but should not restrict or prevent the fulfilment of other behavioural needs. Most grazing animals have strong social instincts and should not be kept in isolation except for veterinary treatment and then only for the minimum duration needed. As far as possible, animals should be kept in stable social groups where the relationships between individuals are well formed and free of aggression. All the animals in the group should be of similar type, age and fitness, unless it consists of breeding females with young. It is especially important in this latter case that routine husbandry operations which may require separation of dam and offspring are designed to minimise disruption and stress.

e. fear

Animals used for conservation grazing must not be subjected to conditions which cause fear or stress with any frequency, regularity or for prolonged periods. Extensively managed livestock of suitably adapted breeds and types should, when accustomed to their environment and interacting effectively with their peers, only experience fear on an incidental and infrequent basis. Such animals will also be better adapted to withstanding stress-inducing factors (eg public access, dog worrying etc).

Husbandry practices which require catching, handling, treatment or transportation must be planned properly in advance and implemented in a calm and efficient manner using whatever necessary equipment and facilities can help to minimise the animal's distress. Conditions on nature reserves may make it difficult to establish sufficient control or organisation of stock handling procedures so these may be undertaken more effectively, having transported animals to more suitable premises.

On remote sites which lack fences and crushes, mobile penning units (Pratley system) could be used. (See Chapter 5, sub-section 5.9.6.)

Conclusion

Animals of many types are now commonly and widely used to achieve nature conservation objectives in Britain. Experience gained so far shows that they operate much more cost effectively if due regard is paid to their physical and behavioural needs. This code of practice sets out the principles by which conservation grazing must be managed in order to ensure that husbandry practices:

- " achieve the desired ecological outcomes;
- " comply with all relevant legal statutes;
- " meet the ethical criteria of the conservation body concerned, their supporters and the general public.

References and further reading

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD. 1983. *Code of recommendation for the welfare of livestock. 1. Cattle*. London: MAFF.

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD. 1989. *Code of recommendation for the welfare of livestock. 2. Sheep*. London: MAFF.

