

THE
STANDARD CYCLOPEDIA OF
MODERN AGRICULTURE
AND RURAL ECONOMY

BY THE MOST DISTINGUISHED
AUTHORITIES AND SPECIALISTS
UNDER THE EDITORSHIP OF
PROFESSOR R. PATRICK WRIGHT
F.H.A.S. F.R.S.E. PRINCIPAL OF THE WEST OF SCOTLAND
AGRICULTURAL COLLEGE GLASGOW

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young plants. Cuttings about 1 ft. long, taken in autumn after the fall of the leaf, formed of the firm young branches, from which the lower buds have been removed, should be inserted in rows, 6 in. apart, setting them 6 in. deep. They will start growing the following spring, and in the autumn will be ready for transplanting. It should be mentioned that Black Currants prefer slight shade and shelter from strong winds. They are not a success in high, exposed situations, where the soil is dry. The finest fruit is grown near the sea, where we have seen berries as large as ordinary grapes, produced by bushes growing in soil that was practically all sand, but fed liberally from the pig sty and stable. The varieties preferred by British growers are *Baldwin*, a heavy cropper; *Black Naples*, very large and good, one of the best; *Boskoop Giant*, said to be mite-proof; *Lee's Prolific*, an old favourite of excellent flavour; *Ogden's Black*; and *Carter's Champion*, which has long clusters of large, juicy, well-flavoured berries. [w. w.]

Black Dolphin, a name for the Collier or Bean Aphid. See APHIDES.

Blackface Sheep, Scotch Mountain.—The origin of the Blackface or Scotch Mountain breed of sheep is shrouded in mystery. Only one thing is certain: it has existed with more or less all its present characteristics for many centuries. Hector Boethius, writing about 1460, and speaking of the sheep in the vale of Esk, says: 'Until the introduction of the Cheviots, the rough-woolled Blackfaced sheep alone were to be found'. Prof. Lowe in his work *The Domesticated Animals of Great Britain* (1842), says: 'The more northerly division of the chain of mountains beginning in the heathy lands of Yorkshire and Lancashire has given rise to a race of sheep now very widely diffused. This race has been termed the Blackfaced Heath Breed, a name which, though it does not distinguish it from some of the Forest breeds, may be retained as indicating its peculiar habitat in a country of heaths. It extends across the vales of Kendal and Eden to the higher mountains of Cumberland and Westmoreland on the west, and by the Carter Fell into Scotland, where it occupies the great range of the Greywacke hills stretching from St. Abb's Head on the east to the Irish Channel on the west. It stretches through the upper part of Lanarkshire into Argyllshire and all through the Highlands of Scotland, from the Grampians to the Pentland Firth. It has spread to all the Hebrides, and even to the islands of Orkney and Zetland. This breed may be supposed to have found its way into Scotland by the mountains of the north of England. It has been settled for a period unknown in all the high lands of the counties of Roxburgh, Dumfries, Selkirk, Peebles, Lanark, and all the adjoining districts. The breed is said by some to resemble the Persian, so that it might be conjectured to have been derived from the East. But it is more natural to assume that its peculiar characters have been communicated to it by the effects of food and climate in the rough heathy districts from which it is derived.'

Whatever their origin may have been, so far as Scotland is concerned they appeared first in the south, gradually found their way north into Dumbartonshire, Perthshire, and the Western Highlands. There, by sheer aggressiveness, they displaced huge droves of cattle and the native breed of small whitefaced sheep, and, generally speaking, populated the whole district south of the counties of Ross and Sutherland.

It is very interesting to read of their introduction to the Highlands, where they were by no means universally welcomed. One admirer of the old native breed, which was noted for the fineness of its wool, in writing to the Highland Society in 1790, makes the following comment: 'The coarse-woolled sheep have been debasing the breed under the name of improving it, so that I am inclined to believe that on the mainland of Scotland the true unmixed breed is irrecoverably lost'.

In another passage the same writer gave it as his opinion that if the original breed existed anywhere entirely unmixed, it was in Shetland. A rather interesting account of this old breed is given by Marshall. He says: 'Formerly, and I believe from time immemorial, the Highlands and the entire north of Scotland were stocked with a race of sheep almost as different from those of the southern provinces as goats and deer are from the ancient breed, whose fur consisted of a sort of down, overtopped by long, straight, rigid hair, somewhat like the coat of the beaver and other furred animals; widely different from the wool of European sheep in general. And besides this distinction of coat there is another characteristic difference which marks them still more strongly. The tail, which in all varieties of woolled sheep is long and all covered with rich wool, resembling that of the rest of the body, is, in the animal under notice, short, tapering, and thinly covered with strong silvery hairs, and not exceeding in size that of the goat or deer. Its face, too, is covered with sleek hairs as that of the deer, and like this, it has the eyes prominent.'

About the beginning and middle of last century a great proportion of the best Blackface grazings in Scotland had their stocks changed into Cheviots. It is very probable that, had the owners of these Cheviot flocks been content to work up the breed on the lines of Blackfaces, and to preserve above all things the points that make for hardiness, they would have come to stay; but such was not the case, and after a succession of bad winters and late springs the Blackfaces had in most cases to be restored to the grounds they should probably never have left. It is estimated that there are at present about 1,000,000 Blackface sheep fewer than there were twenty years ago. There are several reasons to account for this diminution, of which the most important is the vast extent of country cleared of sheep to form deer forests. The great advantage of light stocking has also become more widely recognized. While large numbers are found in every district of Scotland, the greatest Blackface sheep-raising counties are naturally Argyll, Inverness, and Perth. Blackface sheep are found all over England, and are kept as

regular stocks in Northumberland, Cumberland, Yorkshire, and Lancashire.

The importance of Blackface sheep is incalculable. It seems certain that if something equally hardy is wanted to take their place, either deer or goats must be resorted to. Commercially, the substitution of goats would be retrogression; while in view of the expense and uncertainty connected with deer forests, the experience of those landowners who have adopted this course leads to the belief that the substitution of deer for sheep will be more rare in the future. In large measure this is due to the heavy loss involved in changing stock. In these circumstances the existence of a breed of sheep such as the Blackface must continue to be a boon to many proprietors, whose high mountain land would otherwise be of little value. Not only does this breed thrive and fatten on such land, but it is universally admitted that, owing to the character of the mountain herbage, the mutton is of exceptionally fine and sweet quality.

It is not many years since epicures insisted on three- and four-year-old Blackface mutton as the greatest delicacy, and high prices were paid for sheep of nice medium weight. Fashion and the wool market have changed this. When wool brought high prices the fleece of the Blackface warranted the farmer in keeping his wethers till three or four years old. But in these times, when the fleece counts for little comparatively, the sheep must be turned into cash as soon as possible. Fashion clamours at the same time for young and tender mutton; so that as regards the Blackface there is a literalness in the saying that 'All flesh is as grass, which to-day is, and to-morrow is cast into the oven'. But while fashion asks for the younger mutton and good prices are obtained for it in the food market, the wool of the Blackface is still a valuable asset to the farmer or landowner, considering that it is grown by a breed which thrives on land otherwise of little value. To show how Blackface mutton is appreciated, it may be interesting to relate that some wether lambs sold at Lanark in autumn, 1906, were eventually killed and shipped in carcass form to New York. No doubt the millionaires who made the mutton the *pièce de résistance* at their Christmas dinners thoroughly enjoyed the fine flavour, which it is hoped was in no way impaired by the necessary cold storage. Before the passing of the three-year-old wether, the chief outlet for Blackface male lambs was the big wether farms which existed, chiefly in the Highlands. Very fortunately for breeders, about the time this road came to be barred the lambs began to be popular with feeders. The fact is realized that three Blackfaces can be kept as cheaply as two of a larger softer breed, and will leave as good a return per head, and the question 'What is to become of the wether lambs?' is solved. The fat ones are at once killed for the London, Manchester, Liverpool, and Birmingham dead-meat markets, where their nice size and quality make them prime favourites. The leaner ones are kept on and fed for the Christmas and spring sales of fat stock, and few varieties of sheep leave such handsome profits. The cross between

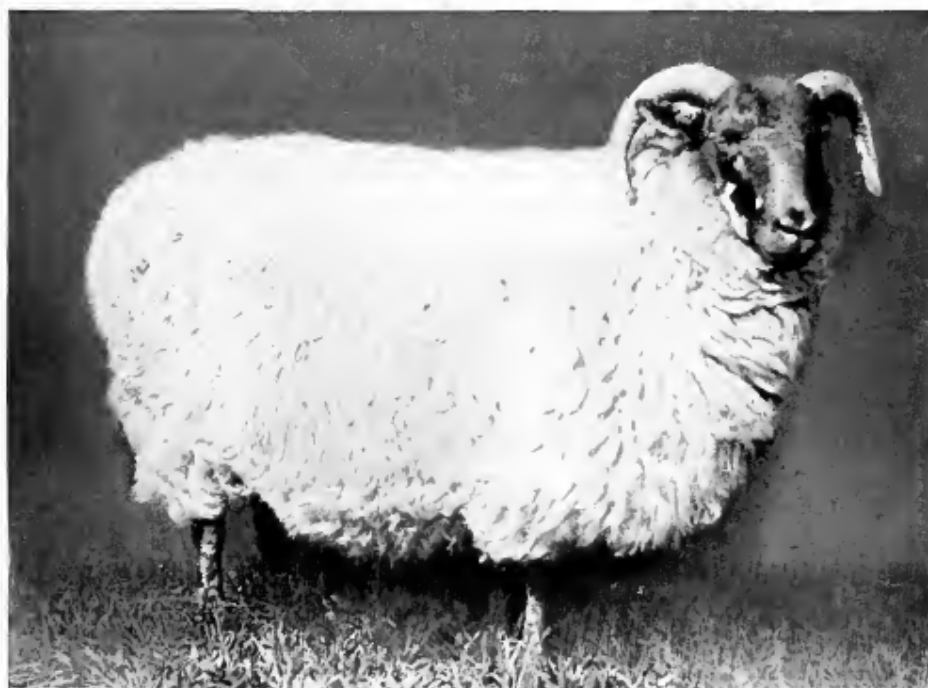
the Blackface ewe and the Border Leicester, and Wensleydale, and to a less degree Shropshire Ram, is also popular among feeders. On many low-lying hill farms every ewe is crossed, and the Blackface mid ewe lambs find a ready market to keep up these stocks. On arable farms the custom is to buy cast ewes off the hills, and from them one cross lamb is taken, and both ewe and lamb are prepared for the butcher. On farms which produce fat lambs, or lambs which mature quickly, the Border Leicester and Shropshire Ram are used; while the Wensleydale is more in vogue where the lambs are inclined to be lean and growthy. The average weight of a five-year-old eild ewe or a three-year-old wether, off the hill, may be put at 48 to 52 lb. of dressed mutton. Until recently, Blackface sheep were never exhibited at fat-stock shows under two or three years of age; indeed they were thought not to have arrived at maturity sooner. Now, however, they are shown as shearlings, not only of superior quality, but of heavier weights than they could be produced at three years old twenty years ago. In 1899, at Smithfield, where they have always been a favourite breed, Mr. McDowall of Girdstingwood gained the championship of the show, among the long-woolled breeds, with a pen of three shearling wethers which scaled 673 lb. In 1902 Sir John Gilmour of Montrave won in the recently started class for wether lambs with a pen of three, weighing 461 lb.

The wool of the Blackface sheep is a unique product, and is now used almost entirely in spinning wools for the carpet trade. In bygone years a considerable portion was spun into yarns for making braids, and the best qualities were in particular demand for this purpose. Latterly, however, owing to the change that has taken place in the character of the fleeces now generally produced by flockmasters, the percentage of wool of a quality suitable has become so small that spinners of these yarns have almost given up its use. A very large proportion of the production now goes to the United States of America, where it is used entirely for the purposes of carpet manufacture. In this country it is used to some extent for clothing purposes; when the rougher tweeds are in fashion it is blended with other wools in the making of them. Only, however, the finer, softer, and shorter wools are at all suitable, the best adapted being got principally in the counties of Argyll and Inverness.

The weight of the fleeces varies in the different localities. The southern counties, including Perth and Stirling, produce the heaviest fleeces, the average weight being from 4 to 5½ lb., while the general run of clip per ewe in Argyll, Inverness, and Ross is from 3 to 4 lb. Probably the very heaviest fleeces are produced in Lanarkshire, Ayrshire, and Midlothian; but in them, owing to the nature of the grazings, a larger percentage of foreign matter is found, and frequently the shrinkage in cleaning these wools is from 5 to 7½ per cent above those that are cleaner grown. Hog fleeces may be taken to weigh 1 lb. more than ewe, and the average weight of three-year-old wether fleeces may be



BLACKFACE SHEARLING RAM—"GOLD HOOF"
CHAMPION AT BIGGAR, AND 3RD AT II. & A.S. SHOW, 1906



BLACKFACE EWE—"PRINCESS OF WALES"

put at about 6 lb. All these figures are for white wool. The old fashion of smearing is still practised by a few Skye crofters, but any broker would have considerable difficulty in filling an order for a dozen bags of *laid* wool. The value of the wool has fluctuated greatly of recent years. In 1901 it fell to 4d. or 4½d., and in 1907 rose to as high as 8d. to 8½d. In 1908 a downward tendency again became evident, a drop of 3d. per lb. on the previous year's prices having been recorded.

It does not seem possible to grow the wool too strong if it be kept moderately free from kemp and black spots. To provide adequate protection for the sheep must be the first consideration, and a strong, thickly planted fleece, uniform all over the body, and one that will not readily open up to let in wind and rain, should be aimed at. A thin, long fleece causes the shepherd to grumble, as the sheep are thereby rendered helpless in snow and wet, and the lambs prevented from sucking. Over-roughness is blamed for causing tup-eild ewes, which are more common than in former times. A very usual practice is to clip the tails of the ewes, but if this course be adopted, care must be taken that it is not done too near the time when the rams are put out. Blackface hogs are usually sent away for the winter, and return to their grazings in the beginning of April. They are clipped about the third week of June, when the lambs are marked. The clipping of the milk ewes takes place in July, the exact time depending on the character of the season and the nature of the farm. It is found that both hogs and ewes have ample new wool grown by winter to keep them warm, and this fact points to the absurdity of the present custom of clipping the rams in January or earlier. It is generally believed that wintering the young rams in well-ventilated, airy houses does nothing to impair the constitution of the sheep; undoubtedly it is the cheapest method, as all waste of food by wind and rain is avoided. In order to ensure, however, that the sheep will be at his fittest when the ewes require his services, he ought not to be clipped till May or June. Clipping in early January means that the ram will have nearly a year's growth of wool to carry while he is out on the hill, and in wet weather the additional weight is a great drawback. In snow he gets completely matted up and is unable to move, the result being, of course, an unnecessary percentage of eild ewes. Most buyers, when they purchase an early clipped ram, shear him a second time before turning him out; but this must be wrong, as the sheep naturally requires more covering in winter than he has had in summer, and the effect of the second clipping is often a chill, attended not infrequently by fatal results. Excessive feeding in summer is also to be deprecated. It is not fair to expect a ram to do a heavy season under any but the most favourable circumstances, and the sudden stopping of the hand-feeding which he has been receiving all summer is most injurious. Of course, if the ram can be fed while he is with the ewes, the evil is mitigated, but in the great majority of cases this course is impracticable.

A good specimen of the Blackface Ram is a

most majestic and picturesque animal. He has a fine carriage and appearance. He should have a broad, deep face, with a square muzzle, deep jaw, wide nostrils, and a wild, piercing eye. He should have a small tuft of fine wool on his forehead, called a 'snow lock', which betokens a good cover of wool below the body. The prevailing colour of his face and legs should be jet-black, and if marked with white, the two colours should be quite distinct. A pure black face is apt to be accompanied by a black 'turn up', but in no case should the white predominate. His horns should be long and of medium thickness, and go flat away from the crown, leaving a space of skin and hair between the roots. The sweep is slightly backwards and outwards, to leave space between the horns and the cheeks. His neck should be of medium length, carrying its thickness back, and attached firmly to strong, slightly laid back shoulders. The ribs behind the shoulder blades should be well arched and deep; the breast bone should come well through between the fore legs to give a large space for the vital organs. His back should be broad and flat, quarters long and level, with well-rounded fleshy gigots. His legs should be strong and sinewy, his bones flat, and he should stand well back on his pasterns on large wide feet; when he walks he should point his hocks slightly outward. His tail should be of fair length, thickly woolled, and should come down over his hocks. A good ewe has much the same points, but is of a refined and feminine character.

Successful management of Blackface sheep practically hinges on three points: light stocking, draining, and adequate burning of heather and rough grass. No breed of sheep can be expected to do well on ground that is overstocked: the change in appearance that takes place in the sheep on a farm from which even a few head have been removed, must be seen to be credited. Indeed it is no uncommon thing on an overstocked farm for the weaker members of the flock to die off, till the correct number is left on the ground. Draining improves not only the pasture but the climate, by taking away the chilly damp feeling from the atmosphere. It also removes the cause of several of the ills to which sheep flesh is heir. The old idea that burning of heather is injurious to game has happily been exploded, and it is now generally accepted that what is good for sheep is also good for grouse. All heather should be burned on a seven to ten years' rotation, which secures a plentiful crop of the young plant for both beast and bird. When burned as suggested, the new shoots come away soon and strong, while the direct opposite is the case where the old plants have been allowed to become trees. The rough grasses should be burned annually. This answers a double purpose by providing sweet young pasture, and by preventing the old grass from blowing into and choking up the drains. The provision of suitable shelters is also a matter deserving of great consideration. Youatt speaks of these in 1837 as having been first erected in Lanarkshire. Apparently, when he wrote, they were something quite novel, and he speaks of

them as 'a commencement of improvement' in the matter of taking proper care of the flock. He describes the ones he saw as 'circular open stalls or pounds, the walls being 5 or 6 ft. high, and in a few cases surrounded by fir trees'. The want of these shelters was evidently badly felt in the days of Hogg, the Ettrick poet. He gives a lurid description of a storm which occurred about the middle of the 17th century:—"For thirteen days and nights the snow drift never once abated; the ground was covered with frozen snow when it commenced, and during all the time of its continuance the sheep never broke their fast. The cold was intense to a degree never before remembered, and about the fifth and sixth days of the storm the young sheep began to fall into a sleepy and torpid state, and all that were so affected in the evening died during the night. About the ninth and tenth days the shepherds began to build up huge semicircular walls of their dead, in order to afford some shelter to the remainder, but shelter availed little, for the want of food began to be felt so severely that they were frequently seen tearing one another's wool. When the storm abated on the fourteenth day, there was, on many a high-lying farm, not a living sheep to be seen, large misshapen walls of dead, surrounding a small prostrate flock, likewise all dead and frozen stiff in layers, were all that remained to the forlorn shepherd and his master. In the extensive pastoral district of Eskdale Muir, which previously contained more than 20,000 sheep, only forty young wethers were left on one farm and five old ewes on another. The farm of Phants remained without stock and without a tenant for forty years after the storm, and an extensive glen in Tweedsmuir became a common to which any man drove his flocks that pleased, and so it continued for nearly a century."

The same writer tells of a storm in January, 1794. He says: "This storm fell with peculiar violence on that division of the South of Scotland that lies between Crawford Muir and the Border. In these bounds seventeen shepherds perished, and upwards of thirty were carried home insensible, who afterwards recovered. The number of sheep that were lost outwent any possibility of calculation. One farmer alone lost seventy-two scores, and many others in the same quarter from thirty to forty scores each."

Of course, it goes without saying that a good shepherd is absolutely essential to the well-being of the sheep. Whether they are viewed on their native heath, or seen going through the sale ring, the evidences of good or indifferent herding are clearly marked. Fortunately for both the sheep and their owners, good careful men are much more common than careless or indifferent ones, and indeed it may be said, without fear of contradiction, that by no other class of workmen is more faithful service given.

Blackface sheep are unfortunately quite as subject to disease as those of other breeds. Owing, however, to the labours and experiments carried out by a Commission appointed by the Board of Agriculture in 1901, the two most fatal of these, viz. 'Braxy' and 'Louping Ill'

or 'Trembling', have been proved preventable. About these ailments, however, it is unnecessary to say more, as they are treated of very fully under their proper headings.

Sheep scab has been brought into great prominence of late years. It is a most irritating and annoying skin disease, but is fortunately not only easily prevented but readily cured. Careful dipping is at once the cure and prevention, and sheep-farmers are under a deep obligation to the Board of Agriculture for the strong action taken in passing the Sheep Dipping Order of 1906, which has rendered the movement of sheep from one county or country into another a matter of comparatively little trouble. The regulations at present are that all sheep must be dipped twice in each year, once between 1st January and 31st August, and again between 1st September and 12th November. It has been clearly proved that the best course to pursue is to have the two dippings within three weeks or a month of each other. At the first dipping all the living vermin are destroyed, but the eggs escape uninjured. By the time for second dipping all the eggs have hatched, and the young parasites are killed before they get time to deposit a fresh supply. Should the exigencies of the market make it necessary to have the first dipping done very early, say in July, it will be found a good plan to dip a third time within three weeks of the second.

The year on a Blackface sheep-farm may be said to commence when the 'crock' ewes are drawn off and sold, towards the end of September or beginning of October. Then comes the 'keiling' of the stock with the farm mark, usually done, to save a handling, when the hogs are being sent away to wintering. About the 20th or 22nd of November the rams are put out to the ewes on the hill, where they remain till the first week of January. They are then brought into the parks and fed with oats, maize, and cakes till the beginning of April, when they are again turned out to the hill for summer. A liberal allowance of well-got meadow hay is also found to be most beneficial, and is much relished by the sheep. In good weather, January, February, and March may be called the slack time, when the sheep require very little attention. Of course, in a stormy season the very reverse is the case, and the shepherds have to be on the constant lookout for squalls. On 1st April the hogs return from wintering, and are usually dipped before being turned out to the hill. Lambing commences on the 15th to 18th April, and for the ensuing three weeks the shepherds must be on the hill from morning to night. The lamb crop is determined chiefly by the character and elevation of the grazing, and may vary from 85 per cent on highlands to over 100 per cent in the more favoured low-lying districts. Not much goes on between the end of lambing and the middle or end of June, which allows time to the shepherds for the preparing of their stock of winter fuel. Then the lambs are marked, and usually the eild ewes and hogs clipped. The clipping of the milk ewes follows in the second week of July, and after that the

securing of the meadow hay receives the undivided attention of all hands. The first dipping is usually overtaken early in August, which ensures the showing of the sale lambs in fine bloom at the sales from the middle of August and onwards. In sorting the lambs, all the wethers are put away, unless the farm be one carrying a 'running' stock of mixed ewes and wethers, in which case the tops are retained. The top ewe lambs are always kept for stock, to the number of about one-fifth of the ewes; all the others are either marketed at once, or else wintered and sold in the early summer as hoggs. As early as possible in September the entire stock is dipped for the second time, and, this job over, the season's work may be said to be completed.

The farmer, however, who goes in for rearing rams for show and sale purposes has practically no end to his work. The lambs selected for keeping are put on to good foggage at weaning time, and about the middle of October go into the house. The object being to have them ready to clip at New Year, care has to be taken that the thriving of the young animals goes on without the slightest check. To achieve this end, they are taught to eat artificial foods at a very early date, and indeed it is not an uncommon thing to feed both the lambs and their mothers through the summer. While in the house they get a liberal allowance of mixed grains and cake, with as much good hay and fresh water as they will consume, and a hot supper of boiled barley and bran usually forms an item on the menu. After clipping, an increased diet is given, as naturally the sheep misses his wool and requires extra food to keep up the heat. About the beginning of May the doors are opened, the sheep allowed to run out and in, and from then on to sale time the feeding is gradually increased. Throughout the summer, cabbages form a very important item in the bill of fare, and every successful exhibitor sees to it that he has an ample supply of both the early and late varieties.

While there is no general Flock Book for Blackface sheep, every breeder of note keeps a most particular record of the pedigree of both his rams and his ewes. The Breed Society is called 'The Blackface Sheep Breeders' Association'. The annual meetings are held at Lanark and Perth in alternate years, on the evening preceding the September ram sales. The association was formed in 1901, and has for its object the furtherance of the interests of the breed in every way possible. Its system of giving prizes for wether lambs at the great Christmas and Spring sales of fat stock has proved most successful, and has done not a little good in bringing prominently to the notice of feeders the good qualities of the lambs.

In writing of the more successful breeders of to-day it would ill become anyone to forget the pioneers who planted and watered the good seed more than a hundred years ago. In the statistical account of Scotland of 1795, David Dun of Kirkton is described as having 'the best stock of Blackface ewes that are to

be met with in Scotland'. About this Mr. Dun we know little, but the lands of Kirkton, near Campsie, in Stirlingshire, were afterwards merged into the farm of Knowehead, which became so famous in the occupancy of the Messrs. Foyer. All through the first half of last century we find prominent mention of Foyer of Knowehead and M'Kersie of Glenbuck, in Ayrshire, and undoubtedly every well-known stock of the present day can trace back to the original sheep in the possession of these two breeders. There was a celebrated ewe stock on Glenbuck in the 18th century, when the property came into the possession of the Cumberland Mining Company. This concern, however, shortly afterwards failed, the stock was dispersed, and the new tenant substituted wethers. In 1811 Mr. M'Kersie became tenant, and at once put away the wethers, and succeeded in buying back a few ewe lambs whose descent could be traced back to the original stock. In 1872 Mr. Howatson, who had for ten years been first tenant and then proprietor of Crossflatt, bought the property, and everyone knows how world-wide the fame of the stock has since become. On Crossflatt, Mr. Howatson had, with infinite trouble and painstaking, succeeded in developing a stock second to none, and the two properties being within view of each other, and both being in Mr. Howatson's own occupation, the stocks became pretty nearly identical. In 1903 Mr. James Clark entered upon a lease of Crossflatt, and the figures of the two valuations, when Mr. Howatson took over the stock in 1863 and when he parted with it forty years later, are very interesting and instructive.

The figures are:—

		1863.
Ewe and lamb	28s. 7d. each ewe.	
Ewe hoggs	23s. 4d. each.	
		1903.
Stud ewes and lambs	£5, 10s. each ewe.	
Hill ewes and lambs	£4, 14s. "	
Ewe hoggs	£2, 18s. each.	

Mr. Howatson's highest price for a ram was made in 1898, when he sold 'Scotland Yet' to Mr. Dunlop, Dunure Mains, for £200. This constitutes the record price for the breed. His highest average was made in the same year, when he received £81, 16s. each for a group of five shearlings. Mr. Howatson has set up another record in having gained first prize for shearlings at twelve consecutive Highland shows.

In the hands of their new owner, Crossflatt sheep continue to command high prices, and at the Highland Show held at Glasgow in 1905, Mr. Clark carried off the championship with his winning shearling 'Heather Bell', and also the Sinclair Scott trophy for the best group of two males, two females, and one lamb of either sex, the produce of the ewe exhibited in the group.

The name Cadzow of Borland has for many years been familiar to all lovers of sheep. Since 1880, when they entered upon the tenancy of Borland, their sheep have won numerous distinctions, including the Breed championship at the Highland Show in 1906, and at Lanark ram

sale of 1907 they sold four sheep at £100 each and over, and set up the astonishing record of £98 for the first prize group of five shearlings and the Sinclair Scott trophy in 1906 and 1907.

Other names which stand out prominently as successful breeders of Blackface sheep are Hamilton of Woolfords, the Archibalds of Overshiels, M'Dougall of Claggan, and Buchanan of

Lettre, all of whom are regular exhibitors at the leading shows. It must not, however, be supposed that these stand alone in regard to the excellency of the sheep bred by them. This will readily be seen from a glance at the following table, which shows the best averages obtained for rams at the Lanark and Perth sales in 1907:—

LANARK.

Breeder.	Number.	Highest.	Average.
		£ s. d.	£ s. d.
Messrs. Cadzow, Borland, Lanarkshire	20	140 0 0	41 14 6
Mr. Howatson, Glenbuck, Ayrshire	10	115 0 0	33 11 0
Mr. Hamilton, Woolfords, Midlothian	13	80 0 0	22 18 5
Mr. Lees, Lagg, Ayrshire	9	103 0 0	20 4 5
Mr. Clark, Crossflatt, Ayrshire	11	57 0 0	19 14 6
Mr. Fraser, Rankinston, Ayrshire	17	38 0 0	19 8 2
Mr. Lumsden, Arden, Dumbarton	6	30 0 0	19 3 4
Col. M'Kenzie, Muirhouses, Dumbarton	13	35 0 0	16 17 7
Mr. Calder, Ledlanet, Perthshire	10	40 0 0	15 8 0
Mr. Howatson, Carskeoch, Ayrshire	7	38 0 0	15 7 1
Mr. Scott, Bogside, Lanark	15	36 0 0	12 8 8
Mr. Mitchell, Hazleide, Lanark	30	35 0 0	11 6 0
Mr. Hamilton, Nether Wellwood, Ayrshire	10	43 0 0	10 18 6
Mr. Hope, South Brownhill, Lanark	9	14 0 0	10 6 8
Mr. Archibald, Overshiels, Midlothian	28	28 0 0	10 3 2
Mr. Hamilton, South Cumberhead, Lanark	12	30 0 0	8 15 5
Messrs. Macmillan, Glencrosh, Dumfries	7	26 0 0	8 10 0

PERTH.

Breeder.	Number.	Highest.	Average.
		£ s. d.	£ s. d.
Mr. Campbell, Kerromore, Perth	5	34 0 0	15 3 0
Mr. M'Dougall, Claggan, Perth	16	36 0 0	14 18 9
Mr. Clark, Crossflatt, Ayr	13	20 0 0	13 9 3
Mr. Hamilton, Woolfords, Midlothian	13	50 0 0	13 3 1
Mr. Howatson, Glenbuck, Ayr	16	30 0 0	13 1 4
Mr. Buchanan, Lettre, Stirling	40	90 0 0	12 15 6
Mr. Sandilands, Corsehaugh, Dumfries	16	52 0 0	12 8 2
Mr. Archibald, Overshiels, Midlothian	30	65 0 0	11 19 0
Mr. Scott, Bogside, Lanark	20	36 0 0	10 19 5
Messrs. Cadzow, Borland, Lanark	60	85 0 0	10 14 2
Mr. Calder, Ledlanet, Perth	10	16 0 0	10 13 0
Mr. M'Intyre, Tighnabla, Perth	14	26 0 0	10 8 11
Col. M'Kenzie, Muirhouses, Dumbarton	15	40 0 0	10 5 0
Mr. Macdonald, Ullar, Perth	8	16 0 0	9 18 2
Mr. Hope, South Brownhill, Lanark	14	20 0 0	9 11 0
Mr. Fraser, Rankinston, Ayr	16	48 0 0	9 10 7
Mr. Brydon, Burncastle, Berwick	18	26 0 0	9 9 6
Mr. Pate, West Browncastle, Lanark	9	18 0 0	9 7 9
Dr. Watson, East Browncastle, Lanark	9	13 0 0	9 3 4
Mr. Craig, Kinross, Lanark	9	16 0 0	9 2 9
Mr. Lees, Lagg, Ayr	12	30 0 0	9 2 1
Mr. Buchanan, Blairquosh, Stirling	9	15 0 0	9 1 8
Mr. Whyte, Spott, Forfar	32	16 0 0	8 16 3
Mr. Macrae, Stenhouse, Dumfries	17	19 0 0	8 1 9

A good many breeders prefer to sell their rams as lambs, and thus save the trouble and risk of feeding them. Not a few buyers also prefer to buy lambs, in order that they may winter them to please themselves, with the result that for good lambs there is usually a first-rate demand.

Until about the year 1857 the market held at West Linton in the end of June was the most important for Blackfaces in Scotland, and hence

the origin of the name 'Linton', which seems to have been commonly applied to the whole breed. After that date Lanark became the chief market, and probably continues so at the present time. Very large sales are also held at Ayr, Peebles, Castle Douglas, Thornhill, and Biggar in the south of Scotland, and in the north at Perth, Stirling, Oban, and Inverness. Sales by private bargain seem to become fewer every year,

and practically every town of any importance is now supplied with an auction mart.

It has been stated already that Blackface sheep, grown under favourable circumstances, mature early, but the fact must never be lost sight of that this is by no means the principal characteristic of the breed. The points breeders must aim at acquiring and retaining in their flocks are: hardiness of constitution, the ability to endure any amount of winter storms and spring barrenness on land at any altitude, and the power to come up fresh and smiling at five and six years of age. If a farmer attempts to breed big soft wether lambs for early maturity under any but the most favourable conditions he can only expect to spoil his ewe stock. Let him use none but well-bred rams possessing good bones, heads, and frames, and of a size suitable to his ground, and his wether lambs will have all the early maturity points it is safe to try for. It is very easy to lose the substance by grasping at the shadow, and once gone it is apt to be gone for ever. [R. M.]

Blackface Sheep, Scotch Mountain.—

The origin of the Blackface or Scotch Mountain breed of sheep is shrouded in mystery. Only one thing is certain: it has existed with more or less all its present characteristics for many centuries. Hector Boethius, writing about 1460, and speaking of the sheep in the vale of Esk, says: 'Until the introduction of the Cheviots, the rough-woolled Blackfaced sheep alone were to be found'. Prof. Lowe in his work *The Domesticated Animals of Great Britain* (1842), says :

' The more northerly division of the chain of mountains beginning in the heathy lands of Yorkshire and Lancashire has given rise to a race of sheep now very widely diffused. This race has been termed the Blackfaced Heath Breed, a name which, though it does not distinguish it from some of the Forest breeds, may be retained as indicating its peculiar habitat in a country of heaths. It extends across the vales of Kendal and Eden to the higher mountains of Cumberland and Westmoreland on the west, and by the Carter Fell into Scotland, where it occupies the great range of the Greywacke hills stretching from St. Abb's Head on the east to the Irish Channel on the west. It stretches through the upper part of Lanarkshire into Argyllshire and all through the Highlands of Scotland, from the Grampians to the Pentland Firth. It has spread to all the Hebrides, and even to the islands of Orkney and Zetland. This breed may be supposed to have found its way into Scotland by the mountains of the

north of England. It has been settled for a period unknown in all the high lands of the counties of Roxburgh, Dumfries, Selkirk, Peebles, Lanark, and all the adjoining districts. The breed is said by some to resemble the Persian, so that it might be conjectured to have been derived from the East. But it is more natural to assume that its peculiar characters have been communicated to it by the effects of food and climate in the rough heathy districts from which it is derived.'

Whatever their origin may have been, so far as Scotland is concerned they appeared first in the south, gradually found their way north into Dumbartonshire, Perthshire, and the Western Highlands. There, by sheer aggressiveness, they displaced huge droves of cattle and the native breed of small whitefaced sheep, and, generally speaking, populated the whole district south of the counties of Ross and Sutherland. It is very interesting to read of their introduction to the Highlands, where they were by no means universally welcomed. One admirer of the old native breed, which was noted for the fineness of its wool, in writing to the Highland Society in 1790, makes the following comment: 'The coarse -woolled sheep have been debasing the breed under the name of improving it, so that I am inclined to believe that on the mainland of Scotland the true unmixed breed is irrecoverably lost'. In another passage the same writer gave it as his opinion that if the original breed existed anywhere entirely unmixed, it was in Shetland. A rather interesting account of this old breed is given by Marshall. He says: 'Formerly, and I believe from time immemorial, the Highlands and the entire north of Scotland were stocked with a race of sheep almost as different from those of the southern provinces as goats and deer are from the ancient breed, whose fur consisted of a sort of down, overtopped by long, straight, rigid hair, somewhat like the coat of the beaver and other furred animals; widely different from the wool of European sheep in general. And besides this distinction of coat there is another characteristic difference which marks them still more strongly. The tail, which in all varieties of woolled sheep is long and all covered with rich wool, resembling that of the

rest of the body, is, in the animal under notice, short, tapering, and thinly covered with strong silvery hairs, and not exceeding in size that of the goat or deer. Its face, too, is covered with sleek hairs as that of the deer, and like this, it has the eyes prominent.'

About the beginning and middle of last century a great proportion of the best Blackface grazings in Scotland had their stocks changed into Cheviots. It is very probable that, had the owners of these Cheviot flocks been content to work up the breed on the lines of Blackfaces, and to preserve above all things the points that make for hardiness, they would have come to stay; but such was not the case, and after a succession of bad winters and late springs the Blackfaces had in most cases to be restored to the grounds they should probably never have left. It is estimated that there are at present about j 1,000,000 Blackface sheep fewer than there were twenty years ago. There are several reasons to account for this diminution, of which the most important is the vast extent of country cleared of sheep to form deer forests. The great advantage of light stocking has also become more widely recognized. While large numbers are found in every district of Scotland, the greatest Blackface sheep -raising counties are naturally Argyll, Inverness, and Perth. Blackface sheep are found all over England, and are kept as

regular stocks in Northumberland, Cumberland, Yorkshire, and Lancashire.

The importance of Blackface sheep is incalculable. It seems certain that if something equally hardy is wanted to take their place, either deer or goats must be resorted to. Commercially, the substitution of goats would be retrogression ; while in view of the expense and uncertainty connected with deer forests, the experience of those landowners who have adopted this course leads to the belief that the substitution of deer for sheep will be more rare in the future. In large measure this is due to the heavy loss involved in changing stock. In these circumstances the existence of a breed of sheep such as the Blackface must continue to be a boon to many proprietors, whose high mountain land would otherwise be of little value. Not only does this breed thrive and fatten on such land, but it is universally admitted that, owing

to the character of the mountain herbage, the mutton is of exceptionally fine and sweet quality. It is not many years since epicures insisted on three- and four-year-old Blackface mutton as the greatest delicacy, and high prices were paid for sheep of nice medium weight. Fashion and the wool market have changed this. When wool brought high prices the fleece of the Blackface warranted the farmer in keeping his wethers till three or four years old. But in these times, when the fleece counts for little comparatively, the sheep must be tui-ned into cash as soon as possible. Fashion clamours at the same time for young aud tender mutton; so that as regards the Blackface there is a literalness in the saying that 'All flesh is as grass, which today is, and to-morrow is cast into the oven'. But while fashion asks for the younger mutton and good prices are obtained for it in the food market, the wool of the Blackface is still a valuable asset to the farmer or landowner, considering that it is grown by a breed which thrives on land otherwise of little value. To show how Blackface mutton is appreciated, it may be interesting to relate that some wether lambs sold at Lanark in autumn, 1906, were eventually killed and shipped in carcass form to New York. No doubt the millionaires who made the mutton the piece de resistance at their Christmas dinners thoroughly enjoyed the fine flavour, which it is hoped was in no way impaired by the necessary cold storage. Before the passing of the three year-old wether, the chief outlet for Blackface male lambs was the big wether farms which existed, chiefly in the Highlands. Very fortunately for breeders, about the time this road came to be barred the lambs began to be popular with feeders. The fact is realized that three Blackfaces can be kept as cheaply as two of a larger softer breed, and will leave as good a return per head, and the question 'What is to become of the wether lambs ?' is solved. The fat ones are at once killed for the London, Manchester, Liverpool, and Birmingham dead-meat markets, where their nice size and quality make them prime favourites. The leaner ones are kept on and fed for the Christmas and spring sales of fat stock, and few varieties of sheep leave such handsome profits. The cross between the Blackface ewe and the Border Leicester, and

Wensleydale, and to a less degree Shropshire Bam, is also popular among feeders. On many low-lying hill farms every ewe is crossed, and the Blackface mid ewe lambs find a ready market to keep up these stocks. On arable farms the custom is to buy cast ewes off the hills, and from them one cross lamb is taken, and both ewe and lamb are prepared for the butcher. On farms which produce fat lambs, or lambs which mature quickly, the Border Leicester and Shropshire Bam are used; while the Wensleydale is more in vogue where the lambs are inclined to be lean and growthy. The average weight of a five year-old ewe or a three-year-old wether, off the hill, may be put at 48 to 52 lb. of dressed mutton. Until recently. Blackface sheep were never exhibited at fat stock shows under two or three years of age ; indeed they were thought not to have arrived at maturity sooner. Now, however, they are shown as shearlings, not only of superior quality, but of heavier weights than they could be produced at three years old twenty years ago. In 1899, at Smithfield, where they have always been a favourite breed, Mr. M'Dowall of Girdstingwood gained the championship of the show, among the long-wooled breeds, with a pen of three shearling wethers which scaled 673 lb. . In 1902 Sir John Gilmour of Montrave won in the recently started class for wether lambs with a pen of three, weighing 461 lb.

The wool of the Blackface sheep is a unique product, and is now used almost entirely in spinning wools for the carpet trade. In bygone years a considerable portion was spun into yarns for making braids, and the best qualities were in particular demand for this purpose. Latterly, however, owing to the change that has taken place in the character of the fleeces now generally produced by flockmasters, the percentage of wool of a quality suitable has become so small that spinners of these yarns have almost given up its use. A very large proportion of the production now goes to the United States of America, where it is used entirely for the purposes of carpet manufacture. In this country it is used to some extent for clothing purposes ;

when the rougher tweeds are in fashion it is blended with other wools in the making of them. Only, however, the finer, softer, and shorter

wools are at all suitable, the best adapted being got principally in the counties of Argyll and Inverness.

The weight of the fleeces varies in the different localities. The southern counties, including Perth and Stirling, produce the heaviest fleeces, the average weight being from 4 to 5j lb., while the general run of clip per ewe in Argyll, Inverness, and Ross is from 3 to 4 lb. Probably the very heaviest fleeces are produced in Lanarkshire, Ayrshire, and Midlothian; but in them, owing to the nature of the grazings, a larger percentage of foreign matter is found, and frequently the shrinkage in cleaning these wools is from 5 to 1^ per cent above those that are cleaner' grown. Hog fleeces may be taken to weigh 1 lb. more than ewe, and the average weight of three-year-old wether fleeces may be

put at about 6 lb. All these figures are for white -wool. The old fashion of smearing is still practised by a few Skye crofters, but any broker would have considerable difficulty in filling an order for a dozen bags of laid wool. The value of the wool has fluctuated greatly of recent years. In 1601 it fell to Ad. or 4^^^., and in 1907 rose to as high as 8d. to 8jd. In 1908 a downward tendency again became evident, a drop of 3rf. per lb. on the previous year's prices having been recorded. It does not seem possible to grow the wool too strong if it be kept moderately free from kemp and black spots. To provide adequate protection for the sheep must be the first consideration, and a strong, thickly planted fleece, uniform all over the body, and one that will not readily open up to let in wind and rain, should be aimed at. A thin, long fleece causes the shepherd to grumble, as the sheep are thereby rendered helpless in snow and wet, and the lambs prevented from sucking. Over -roughness is blamed for causing tup-eild ewes, which are more common than in former times. A very usual practice is to clip the tails of the ewes, but if this course be adopted, care must be taken that it is not done too near the time when the rams are put out. Blackface hoggs are usually sent away for the winter, and return to their grazings in the beginning of April. They are clipped about the third week of June, when the lambs are marked. The clipping of the milk ewes takes place in July, the exact

time depending on the character of the season and the nature of the farm. It is found that both hogs and ewes have ample new wool grown by winter to keep them warm, and this fact points to the absurdity of the present custom of clipping the rams in January or earlier. It is generally believed that wintering the young rams in well-ventilated, airy houses does nothing to impair the constitution of the sheep ; undoubtedly it is the cheapest method, as all waste of food by wind and rain is avoided. In order to ensure, however, that the sheep will be at his fittest when the ewes require his services, he ought not to be clipped till May or June. Clipping in early January means that the ram will have nearly a year's growth of wool to carry while he is out on the hill, and in wet weather the additional weight is a great drawback. In snow he gets completely matted up and is unable to move, the result being, of course, an unnecessary percentage of eild ewes. Most buyers, when they purchase an early clipped ram, shear him a second time before turning him out ; but this must be wrong, as the sheep naturally requires more covering in winter than he has had in summer, and the effect of the second clipping is often a chill, attended not infrequently by fatal results. Excessive feeding in summer is also to be deprecated. It is not fair to expect a ram to do a heavy season under any but the most favourable circumstances, and the sudden stopping of the hand -feeding which he has been receiving all summer is most injurious. Of course, if the ram can be fed while he is with the ewes, the evil is mitigated, but in the great majority of cases this course is impracticable. A good specimen of the Blackface Ram is a

most majestic and picturesque animal. He has a fine carriage and appearance. He should have a broad, deep face, with a square muzzle, deep jaw, wide nostrils, and a wild, piercing eye. He should have a small tuft of fine wool on his forehead, called a 'snow lock', which betokens a good cover of wool below the body. The prevailing colour of his face and legs should be jet-black, and if marked with white, the two colours should be quite distinct. A pure black face is apt to be accompanied by a black 'turn up', but in no case should the white predominate. His horns should be long and of medium thickness,

and go flat away from the crown, leaving a space of skin and hair between the roots. The sweep is slightly backwards and outwards, to leave space between the horns and the cheeks. His neck should be of medium length, carrying its thickness back, and attached firmly to strong, slightly laid back shoulders. The ribs behind the shoulder blades should be well arched and deep; the breast bone should come well through between the fore legs to give a large space for the vital organs. His back should be broad and flat, quarters long and level, with well-rounded fleshy gigots. His legs should be strong and sinewy, his bones flat, and he should stand well back on his pasterns on large wide feet ; when he walks he should point his hocks slightly outward. His tail should be of fair length, thickly woolled, and should come down over his hocks. A good ewe has much the same points, but is of a refined and feminine character.

Successful management of Blackface sheep practically hinges on three points : light stocking, draining, and adequate burning of heather and rough grass. No breed of sheep can be expected to do well on ground that is overstocked

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the change in appearance that takes place in the sheep on a farm from which even a few head have been removed, must be seen to be credited. Indeed it is no uncommon thing on an overstocked farm for the weaker members of the flock to die off, till the correct number is left on the ground. Draining improves not only the pasture but the climate, by taking away the chilly damp feeling from the atmosphere. It also removes the cause of several of the ills to which sheep flesh is heir. The old idea that burning of heather is injurious to game has happily been exploded, and it is now generally accepted that what is good for sheep is also good for grouse. All heather should be burned on a seven to ten years' rotation, which secures a plentiful crop of the young plant for both beast and bird. When burned as suggested, the new shoots come away soon and strong, while the direct opposite is the case where the old plants have been allowed to become trees. The rough grasses should be burned annually. This answers a double purpose by providing sweet young pasture, and by preventing the old grass from blowing

into and choking up the drains. The provision of suitable shelters is also a matter deserving of great consideration. Youatt speaks of these in 1837 as having been first erected in Lanarkshire. Apparently, when he wrote, they were something quite novel, and he speaks of

them as 'a commencement of improvement' in the matter of taking proper care of the flock. He describes the ones he saw as 'circular open stalls or pounds, the walls being 5 or 6 ft. high, and in a few cases surrounded by fir trees'. 'The want of these shelters was evidently badly felt in the days of Hogg, the Ettrick poet. He gives a lurid description of a storm which occurred about the middle of the 17th century :

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" For thirteen days and nights the snow drift never once abated; the ground was covered with frozen snow when it commenced, and during all the time of its continuance the sheep never broke their fast. The cold was intense to a degree never before remembered, and about the fifth and sixth days of the storm the young sheep began to fall into a sleepy and torpid state, and all that were so affected in the evening died during the night. About the ninth and tenth days the shepherds began to build up huge semi-circular walls of their dead, in order to afford some shelter to the remainder, but shelter availed little, for the want of food began to be felt so severely that they were frequently seen tearing one another's wool. When the storm abated on the fourteenth day, there was, on many a high-lying farm, not a living sheep to be seen, large misshapen walls of dead, surrounding a small prostrate flock, likewise all dead and frozen stiff in layers, were all that remained to the forlorn shepherd and his master. In the extensive pastoral district of Eskdale Muir, which previously contained more than 20,000 sheep, only forty young wethers were left on one farm and five old ewes on another. The farm of Phants remained without stock and without a tenant for forty years after the storm, and an extensive glen in Tweedsmuir became a common to which any man drove his flocks that pleased, and so it continued for nearly a century.'

The same writer tells of a storm in January, 1794. He says: 'This storm fell with peculiar

violence on that division of the South of Scotland that lies between Crawford Muir and the Border. In these bounds seventeen shepherds perished, and upwards of thirty were carried home insensible, who afterwards recovered. The number of sheep that were lost outwent any possibility of calculation. One farmer alone lost seventy-two scores, and many others in the same quarter from thirty to forty scores each.' Of course, it goes without saying that a good shepherd is absolutely essential to the wellbeing of the sheep. Whether they are viewed on their native heath, or seen going through the sale ring, the evidences of good or indifferent herding are clearly marked. Fortunately for both the sheep and their owners, good careful men are much more common than careless or indifferent ones, and indeed it may be said, without fear of contradiction, that by no other class of workmen is more faithful service given. Blackface sheep are unfortunately quite as subject to disease as those of other breeds. Owing, however, to the labours and experiments carried out by a Commission appointed by the Board of Agriculture in 1901, the two most fatal of these, viz. 'Braxy' and 'Louping 111'

or ' Trembling ', have been proved preventable. About these ailments, however, it is unnecessary to say more, as they are treated of very fully under their proper headings. Sheep scab has been brought into great prominence of late years. It is a most irritating and annoying skin disease, but is fortunately not only easily prevented but readily cured. Careful dipping is at once the cure and prevention, and sheep-farmers are under a deep obligation to the Board of Agriculture for the strong action taken in passing the Sheep Dipping Order of 1906, which has rendered the movement of sheep from one county or country into another a matter of comparatively little trouble. The regulations at present are that all sheep must be dipped twice in each year, once between 1st January and 31st August, and again between 1st September and 12th November. It has been clearly proved that the best course to pursue is to have the two dippings within three weeks or a month of each other. At the first dipping all the living vermin are destroyed, but the eggs escape uninjured. By

the time for second dipping all the eggs have hatched, and the young parasites are killed before they get time to deposit a fresh supply. Should the exigencies of the market make it necessary to have the first dipping done very early, say in July, it will be found a good plan to dip a third time within three weeks of the second.

The year on a Blackface sheep-farm may be said to commence when the 'crock' ewes are drawn off and sold, towards the end of September or beginning of October. Then comes the 'keiling' of the stock with the farm mark, usually done, to save a handling, when the hoggs are being sent away to wintering. About the 20th or 22nd of November the rams are put out to the ewes on the hill, where they remain till the first week of January. They are then brought into the parks and fed with oats, maize, and cakes till the beginning of April, when they are again turned out to the hill for summer. A liberal allowance of well -got meadow hay is also found to be most beneficial, and is much relished by the sheep. In good weather, January, February, and March may be called the slack time, when the sheep require very little attention. Of course, in a stormy season the very reverse is the case, and the shepherds have to be on the constant lookout for squalls. On 1st April the hoggs return from wintering, and are usually dipped before being turned out to the hill. Lambing commences on the 15th to 18th April, and for the ensuing three weeks the shepherds must be on the hill from morning to night. The lamb crop is determined chiefly by the character and elevation of the grazing, and may vary from 85 per cent on highlands to over 100 per cent in the more favoured low-lying districts. Not much goes on between the end of lambing and the middle or end of June, which allows time to the shepherds for the preparing of their stock of winter fuel. Then the lambs are marked, and usually the eild ewes and hoggs clipped. The clipping of the milk ewes follows in the second week of July, and after that the

securing of the meadow hay receives the undivided attention of all hands. The first dipping is usually overtaken early in August, which ensures the showing of the sale lambs in fine bloom at the sales from the middle of August and

onwards. In sorting the lambs, all the wethers are put away, unless the farm be one carrying a 'running' stock of mixed ewes and wethers, in which case the tops are retained. The top ewe lambs are always kept for stock, to the number of about one-fifth of the ewes ; all the Others are either marketed at once, or else wintered and sold in the early summer as hoggs.

As early as possible in September the entire stock is dipped for the second time, and, this job over, the season's work may be said to be completed.

The farmer, however, who goes in for rearing rams for show and sale purposes has practically no end to his work. The lambs selected for keeping are put on to good forrage at weaning time, and about the middle of October go into the house. The object being to have them ready to clip at New Year, care has to be taken that the thriving of the young animals goes on without the slightest check. To achieve this end, they are taught to eat artificial foods at a very early date, and indeed it is not an uncommon thing to feed both the lambs and their mothers through the summer. While in the house they get a liberal allowance of mixed grains and cake, with as much good hay and fresh water as they will consume, and a hot supper of boiled barley and bran usually forms an item on the menu. After clipping, an increased diet is given, as naturally the sheep misses his wool and requires extra food to keep up the heat. About the beginning of May the doors are opened, the sheep allowed to run out and in, and from then on to sale time the feeding is gradually increased. Throughout the summer, cabbages form a very important item in the bill of fare, and every successful exhibitor sees to it that he has an ample supply of both the early and late varieties.

While there is no general Flock Book for Blackface sheep, every breeder of note keeps a most particular record of the pedigree of both his rams and his ewes. The Breed Society is called 'The Blackface Sheep Breeders' Association'. The annual meetings are held at Lanark and Perth in alternate years, on the evening preceding the September ram sales. The association was formed in 1901, and has for its object the furtherance of the interests of the breed in every way possible. Its system of

giving prizes for wether lambs at the great Christmas and Spring sales of fat stock has proved most successful, and has done not a little good in bringing prominently to the notice of feeders the good qualities of the lambs.

In writing of the more successful breeders of to-day it would ill become anyone to forget the pioneers who planted and watered the good seed more than a hundred years ago. In the statistical account of Scotland or 1795, David Dun of Kirkton is described as having 'the best stock of Blackface ewes that are to

be met with in Scotland'. About this Mr. Dun we know little, but the lands of Kirkton, near Campsie, in Stirlingshire, were afterwards merged into the farm of Knowehead, which became so famous in the occupancy of the Messrs. Foyer. All through the first half of last century we find prominent mention of Foyer of Knowehead and M'Kersie of Glenbuck, in Ayrshire, and undoubtedly every well known stock of the present day can trace back to the original sheep in the possession of these two breeders. There was a celebrated ewe stock on Glenbuck in the 18th century, when the property came into the possession, of the Cumberland Mining Company. This concern, however, shortly afterwards failed, the stock was dispersed, and the new tenant substituted wethers. In 1811 Mr. M'Kersie became tenant, and at once put away the wethers, and succeeded in buying back a few ewe lambs whose descent could be traced back to the original stock. In 1872 Mr. Howatson, who had for ten years been first tenant and then proprietor of Crossflatt, bought the property, and everyone knows how world-wide the fame of the stock has since become. On Crossflatt, Mr. Howatson had, with infinite trouble and painstaking, succeeded in developing a stock second to none, and the two properties being within view of each other, and both being in Mr. Howatson's own occupation, the stocks became pretty nearly identical. In 1903 Mr. James Clark entered upon a lease of Crossflatt, and the figures of the two valuations, when Mr. Howatson took over the stock in 1863 and when he parted with it forty years later, are very interesting and instructive.

The figures are :

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1863.

Ewe and lamb 28s. 7A each ewe.

Ewe hoggs 23s. id. each.

1903.

Stud ewes and lambs ... £6, 10s. each ewe.

Hill ewes and lambs ... £4, 14s. ,,

Ewe hoggs £2, 18s. each.

Mr. Howatson's highest price for a ram was made in 1898, when he sold ' Scotland Yet ' to Mr. Dunlop, Dunure Mains, for £200. This constitutes the record price for the breed. His highest average was made in the same year, when he received £81, 16«. each for a group of five shearlings. Mr. Howatson has set up another record in having gained first prize for shearlings at twelve consecutive Highland shows.

In the hands of their new owner, Crossflatt sheep continue to command high prices, and at the Highland Show held at Glasgow in 1905, Mr. Clark carried off the championship with his winning shearling ' Heather Bell ', and also the Sinclair Scott trophy for the best group of two males, two females, and one lamb of either sex, the produce of the ewe exhibited in the group. The name Cadzow of Borland has for many years been familiar to all lovers of sheep. Since 1880, when they entered upon the tenancy of Borland, their sheep have won numerous distinctions, including the Breed championship at the Highland Show in 1906, and at Lanark ram

sale of 1907 they sold four sheep at £100 each and over, and set up the astonishing record of J98 for the first prize group of five shearlings and the Sinclair Scott trophy in 1906 and 1907. Other names which stand out prominently as successful breeders of Blackface sheep are Hamilton of "Woolfords, the Archibalds of Overshiels, M'Dougall of Claggan, and Buchanan of

Lettre, all of whom are regular exhibitors at the leading shows. It must not, however, be supposed that these stand alone in regard to the excellency of the sheep bred by them. This will readily be seen from a glance at the following table, which shows the best averages obtained for rams at the Lanark and Perth

in 1907:—

LANARK.

Breeder.	Number.	Highest.			Average.		
		£	s.	d.	£	s.	d.
Messrs. Cadzow, Borland, Lanarkshire	20	140	0	0	41	14	6
Mr. Howatson, Glenbuck, Ayrshire	10	115	0	0	33	11	0
Mr. Hamilton, Woolfords, Midlothian	13	80	0	0	22	18	5
Mr. Lees, Lagg, Ayrshire	9	103	0	0	20	4	5
Mr. Clark, Crossflatt, Ayrshire	11	57	0	0	19	14	6
Mr. Fraser, Rankinston, Ayrshire	17	38	0	0	19	8	2
Mr. Lumsden, Arden, Dumbarton	6	30	0	0	19	3	4
Col. M'Kenzie, Muirhouses, Dumbarton	13	35	0	0	16	17	7
Mr. Calder, Ledlanet, Perthshire	10	40	0	0	15	8	0
Mr. Howatson, Carskeoch, Ayrshire	7	38	0	0	15	7	1
Mr. Scott, Bogside, Lanark	15	36	0	0	12	8	8
Mr. Mitchell, Hazleide, Lanark	30	35	0	0	11	6	0
Mr. Hamilton, Nether Wellwood, Ayrshire	10	43	0	0	10	18	6
Mr. Hope, South Brownhill, Lanark	9	14	0	0	10	6	8
Mr. Archibald, Overshiels, Midlothian	28	28	0	0	10	3	2
Mr. Hamilton, South Cumberhead, Lanark	12	30	0	0	8	15	5
Messrs. Macmillan, Glencrosh, Dumfries	7	26	0	0	8	10	0

PERTH.

Breeder.	Number.	Highest.			Average.		
		£	s.	d.	£	s.	d.
Mr. Campbell, Kerromore, Perth	5	34	0	0	15	3	0
Mr. M'Dougall, Craggan, Perth	16	36	0	0	14	18	9
Mr. Clark, Crossflatt, Ayr	13	20	0	0	13	9	3
Mr. Hamilton, Woolfords, Midlothian	13	50	0	0	13	3	1
Mr. Howatson, Glenbuck, Ayr	16	30	0	0	13	1	4
Mr. Buchanan, Lettre, Stirling	40	90	0	0	12	15	6
Mr. Sandilands, Corseshank, Dumfries	16	52	0	0	12	8	2
Mr. Archibald, Overshiels, Midlothian	30	65	0	0	11	19	0
Mr. Scott, Bogside, Lanark	20	36	0	0	10	19	5
Messrs. Cadzow, Borland, Lanark	60	85	0	0	10	14	2
Mr. Calder, Ledlanet, Perth	10	16	0	0	10	13	0
Mr. M'Intyre, Tighnablaier, Perth	14	26	0	0	10	8	11
Col. M'Kenzie, Muirhouses, Dumbarton	15	40	0	0	10	5	0
Mr. Macdonald, Urlar, Perth	8	16	0	0	9	18	2
Mr. Hope, South Brownhill, Lanark	14	20	0	0	9	11	0
Mr. Fraser, Rankinston, Ayr	16	48	0	0	9	10	7
Mr. Bryden, Burncastle, Berwick	18	26	0	0	9	9	6
Mr. Pate, West Browncastle, Lanark	9	18	0	0	9	7	9
Dr. Watson, East Browncastle, Lanark	9	13	0	0	9	3	4
Mr. Craig, Kinnox, Lanark	9	16	0	0	9	2	9
Mr. Lees, Lagg, Ayr	12	30	0	0	9	2	1
Mr. Buchanan, Blairquosh, Stirling	9	15	0	0	9	1	8
Mr. Whyte, Spott, Forfar	32	16	0	0	8	16	3
Mr. Macrae, Stenhouse, Dumfries	17	19	0	0	8	1	9

A good many breeders prefer to sell their rams as lambs, and thus save the trouble and risk of feeding them. Not a few buyers also prefer to buy lambs, in order that they may winter them to please themselves, with the result that for good lambs there is usually a first-rate demand.

Until about the year 1857 the market held at West Linton in the end of June was the most important for Blackfaces in Scotland, and hence the origin of the name 'Linton', which seems to have been commonly applied to the whole breed. After that date Lanark became the chief market, and probably continues so at the present time. Very large sales are also held at Ayr, Peebles, Castle Douglas, Thornhill, and Biggar in the south of Scotland, and in the north at Perth, Stirling, Oban, and Inverness. Sales by private bargain seem to become fewer every year,

and practically every town of any importance is now supplied with an auction mart.

It has been stated already that Blackface sheep, grown under favourable circumstances, mature early, but the fact must never be lost sight of that this is by no means the principal characteristic of the breed. The points breeders must aim at acquiring and retaining in their flocks are: hardiness of constitution, the ability to endure any amount of winter storms and spring barrenness on land at any altitude, and the power to come up fresh and smiling at five and six years of age. If a farmer attempts to breed big soft wether lambs for early maturity under any but the most favourable conditions he can only expect to spoil his ewe stock. Let him use none but well-bred rams possessing good bones, heads, and frames, and of a size suitable to his ground, and his wether lambs will have all the early maturity points it is safe to try for. It is very easy to lose the substance by grasping at the shadow, and once gone it is apt to be gone for ever. [R. M.]

The full book can be viewed at <https://archive.org/details/cu31924053956938>