Fruit fly

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AMONG the many famous breeds of livestock which have earned for Britain the title of “The Stud Farm of the World” the red, white and roan Shorthorns have always been given pride of place in the cattle section. They were the first of the popular cattle breeds existing today to be systematically improved, and at the present time approximately three-quarters of all the cattle in the British Isles carry a preponderance of Shorthorn blood.

There are several “breeds within the breed.” Here in Australia we have our Illawarra Shorthorns as well as representatives of British Shorthorn strains bred for both beef and milk. There is a Poll Shorthorn beef breed which was developed in the United States of America from naturally polled animals that appeared from time to time as “sports” or mutants in pure-bred horned herds and, with the modern tendency to eliminate horns in domesticated stock, the polled breed is rapidly increasing in favour.

The county of Lincolnshire in England evolved the Lincoln Red Shorthorn a dual-purpose animal which has had a separate herd book since 1895, and within recent years attempts have been made to produce a hornless strain of this breed, in this case by introducing Red Poll blood.

**RECORD BREAKERS**

The first cow in the world to yield more than 4,000 gallons of milk in a 365-day lactation was Cherry, a non-pedigree Shorthorn. She gave 41,644\(\frac{1}{2}\) lb. of milk—over 30 times her own weight—completing the 365 days on Good Friday, 1939. Nearer home, we find that another Shorthorn, Melba 15th of Darbalara, established a world record for butterfat production in 1923 when she gave 32,522\(\frac{1}{2}\) lb. of milk for 1,614.1 lb. of butterfat in 365 days.

Melba 15th of Darbalara, the famous Milking Shorthorn cow which established a world record for butterfat production in 1923. She was described as being a beautifully-proportioned, deep red cow of great size. At the close of her record lactation she weighed 15 cwt live weight and scaled 19 cwt. before calving. Her complete record was: 1918—Junior two-year-old. Milk 8,844 lb.; 4.5 test; Butterfat 395.07 lb. in 273 days. 1919—Senior three-year-old. Milk 13,510.50 lb.; 4.3 test; Butterfat 587.13 lb. in 273 days. 1920—Senior four-year-old. Milk 21,655.5 lb.; 4.4 test; Butterfat 954.47 lb. in 365 days. 1922—Mature. Milk 29,432 lb.; 4.5 test; Butterfat 1,316.81 lb. in 365 days. 1923—Mature. Milk 32,522.50 lb.; 5.0 test; Butterfat 1,614.10 lb. in 365 days.
A typical Dairy Shorthorn cow at a British Show. Note its resemblance to the A.I.S. breed.
Photo: "Farmer & Stockbreeder."

Melba 15th was one of a long line of Melbas bred in the Darbalara Stud at Bolara, New South Wales. The herd was founded in 1899 on a basis of Milking Shorthorn blood, probably of the famous Bates' strain that came to Australia during the last century.

It was a Beef Shorthorn bull, Pittodrie Upright, which brought a world's record price of 14,500 guineas at the 1946 sales at Perth, Scotland. This bull, which was only one year and 28 days old at the time of the purchase, was bought by an American rancher and breeder and was but one of a long list of Shorthorns which have gone to improve the herds ranging the pampas and the prairie.

The peaceful hedge-bounded meadows of Northern England, where the breed originated, bear little resemblance to the tropical north of Australia; yet the Shorthorns were well represented in the herds driven across the continent in the epic overlanding feats of the MacDonals, the Duracks and others who blazed the trails from Queensland to the Kimberleys.

It was as a dual-purpose animal that the Shorthorn first achieved fame. Of late years the beef and milking strains have become more sharply defined but we still find good milkers among the beef stock and good butchers' beasts among the best pail-filling herds.

Beef was given emphasis in the "fifties" of last century when the ranchers of the Americas started to build up their herds but the tremendous
increase in Britain's dairying industry from 1880 onward sent the pendulum swinging back to the pail-filling propensities of the breed.

THE COLLING BROTHERS
About 200 years ago, Robert Bakewell, of Dishley Grange—"The Father of British Stud Breeding"—was pioneering planned breed improvement by his selective breeding of Leicester sheep and Longhorn cattle. His revolutionary methods attracted world-wide attention and among the many visitors to his farm were two brothers from Durham, Charles and Robert Colling.

The discovery of steam power, improved iron and steel processes and vast developments in the textile industry had caused a tremendous growth of urban populations in Britain, and Bakewell had foreseen the augmented demand for meat to feed the industrial workers. His improved livestock carried more flesh with less bone, and matured much more rapidly than the old types, and after studying his methods, the Colling brothers returned to Durham as enthusiastic disciples.

They had some good raw material to work on, for the counties of Durham and Yorkshire had been famed for centuries as the home of big, heavy-milking cows and massive draught oxen. The big bullocks were weighty, coarse-boned beasts that took six or seven years to attain their full stature and the Colling brothers aimed at more compact, better-fleshed animals that would be ready for the butcher at half the age.

Beef Shorthorn bull. Photo: "Farmer & Stockbreeder."
When Charles Colling purchased a bull for eight guineas, the brothers had their first stroke of good fortune. This bull was "a smallish, yellowish-red and white animal," according to reports, and had been doing duty as a parish sire, serving cows at a fee of 1s. a head. In Colling's herd, this animal proved amazingly prepotent, stamping his characteristics on his progeny to such a marked degree, that Hubback, as he was afterwards called, is now proudly claimed as the ancestor of most of the world's finest Shorthorn strains.

One of his daughters was the dam of Foljambe, which sired the famous bull Favourite, which in turn sired Comet, all famous names in Shorthorn history.

Much valuable publicity was gained for the Colling brothers and the improved Shorthorn breed by the exhibition throughout England and Scotland of "The Durham Ox" which weighed 27 cwt. and "The White Heifer that Travelled" (22 cwt.). Both these huge animals were sired by the bull Favourite and helped to stimulate the demand for the Colling strains.

**INBREEDING**

As a means of fixing desirable characteristics in his improved strains of livestock, Bakewell had practised inbreeding to a degree which amazed his contemporaries. The Colling brothers, his pupils, inbred their cattle to an extent which has probably never been equalled in any breed in the world.

For instance, the bull Foljambe who sired Favourite was also the sire of Favourite's dam Phoenix. Favourite was then mated to his own dam, Phoenix, to produce the cow, Young Phoenix which was mated back to Favourite to produce the bull Comet which sold for the then record price of 1,000 guineas.

The pedigree charts of the Shorthorn breeders at this time showed dozens of similar close matings and it may be significant that Charles Colling eventually made a drastic outcross by introducing a dash of Galloway blood into his herd, a factor which may help to account for the occurrence of polled animals in pure-bred horned herds from time to time.

**BOOTH AND BATES**

The work of the Colling brothers was continued by many outstanding breeders among whom were Thomas Booth and Thomas Bates both of whom established herds using Colling stock as their foundation animals. From about 1790 onward, at least three generations of the Booth family were engaged in Shorthorn breeding, and early in the 19th century the Booth herd was split into three groups one being held by the founder and the others being taken over by his sons, John and Richard.

Thomas Bates was the founder of the famous Duchess strain of Shorthorns, which created world-wide interest and commanded spectacular prices from American purchasers. Some very high milk yields were recorded from these animals but the Duchess strain eventually faded out.

Bates had continued the Colling policy of close inbreeding but unfortunately there was a tendency to barrenness in the Duchess stock which inbreeding accentuated until cows purchased for as much as £5,000 left no progeny.

There was keen rivalry between Booth and Bates although they worked on somewhat different lines. "Booth for the butcher, Bates for the pail" was the popular slogan often voiced in those days but this was only true to a limited extent as both herds well merited the description of dual-purpose strains.

**SCOTTISH SHORTHORNS**

Meanwhile, in Scotland, Amos Cruickshank, a canny Quaker, had become the tenant of a farm at Sittyton near Aberdeen, in partnership with his brother Anthony. He set out to breed good beef animals and chose his foundation Shorthorn stock carefully. The Sittyton herd was started in 1837 and soon achieved a considerable measure of success but it was not until 20 years
later that Amos Cruickshank really made his mark in beef breeding circles—and that more or less by accident.

In 1858 he found that he had a number of cows which were not in calf and he decided to purchase a young bull. After a fruitless search of a number of English studs he wrote to his friend Wilkinson, of Lenton in Nottinghamshire, whose herd he admired. Wilkinson said that he had no young bull available for sale but that he had a useful eight-year-old bull, Lancaster Comet, which could be purchased for 30 guineas. This bull was descended from Colling stock so Cruickshank purchased him without inspection and he was railed to Sittyton. Amos rode down to the station and was horrified by his first glimpse of the bull which was described as having horns resembling those of the Highland cattle. Poor Lancaster Comet was not allowed to set foot on Sittyton but was sent to an out-farm where he was turned out to grass with a group of cows regarded as being doubtful breeders. He was left out too late in the bleak Aberdeenshire autumn weather and developed rheumatism which caused him to be destroyed, but not before he had sired a few calves. One of his progeny was a bull calf destined to become the famous animal known as Champion of England which laid the foundation of the Scottish Shorthorn breed as we know it today. This bull had everything that good beef sire should have and Amos was not slow to realise his value. He set to work to stamp the good qualities of Champion of England on all the animals of the Sittyton herd. In this he succeeded so well that the Sittyton Shorthorns were soon in great demand by cattlemen throughout the world.

**BEEF SHORTHORN SPECIFICATIONS**

(Issued officially by The Shorthorn Society of Australia.)

**Colour:** Red, white, or roan—no rust. Whites should show yellow skin, not pink; white stockings undesirable.

**Head of Bull:** Strong, masculine, with big prominent, docile eye, wide between the eyes, broad muzzle and large open nostril, short from eye to nose. Horns flat and waxy, fairly strong, coming straight out of the head, curving forward and downward. A cow should be finer in the horn, having a matronly eye and be a little longer in the face, flesh-coloured nose, no blue or black spots.

**Throat:** Clean, without much development of loose flesh underneath.

**Neck:** Of medium length, muscular, with moderate crest (which increases with age); spreading out to meet the shoulders, with full neck vein. Females should have a full neck with no sign of coarseness.

**Shoulders:** Well laid in, covered on the blades and on the top, which should be on a line with the back, and moderately broad.

**Chest:** Wide and deep.

**Bosom (or Brisket):** Standing well out between the legs; and moderately covered with flesh and fat.

**Chine:** Wide and flat.

**Ribs:** Well sprung from the backbone, arched and deep, neatly joined to the crops and loins.

**Back:** Broad and straight from crops to hooks; loins strong; hook bones moderate in width, not...
prominent, and well covered; rumps long, full, level, and rounded neatly into hindquarters.

**Hindquarters:** Deep and full; thighs thick and muscular, and in proportion with hindquarters; twist full.

**Tail:** Fine, coming neatly out of the body on a line with the back, and hanging at right angles to it.

**Under-line:** As nearly as possible straight; flank full and soft.

**Legs:** Short, straight, and squarely placed; hind legs slightly inclined forward below the hocks; fore-arm muscular; bones fine and clean and set wide apart and well outside.

**Flesh:** Even, without bumps or patchiness.

**Skin:** Of moderate thickness and mellow touch, abundantly covered with thick and soft hair.

**General Appearance:** Gay, well bred, and masculine.

**WHAT TO LOOK FOR IN SHORTHORNS**

When judging Shorthorns on parade first look for breed characteristics, constitution, outline and breed character, taking particular notice as to colour and gayness on parade.

The side view of a fat animal should be rectangular. Before handling note the squareness both before and behind.

Stand directly behind the animal, and both feel and see if there is a firm covering of flesh over the pin bones.

Take a step forward, and feel the thickness of flesh both over and under the loin. Measure also the width of the loin.

With the palm of the hand note the quality of meat over the ribs; the thickness and elasticity of the skin should also be tested.

Using the fingers, feel along the top of the backbone, and especially note the width of the chine. There should be no drop either here or behind the shoulder.

The neck veins (fullness of neck) can now be conveniently felt; also note taken of the width of the breast, check and neck.

Step back and feel the flank. It may either be thin or thick. A heavily fleshed flank is the best.

The development of the thigh should be seen, as a good twist adds much to the weight.

The fullness of the purse is said to be an indication of internal fat.

Only practice and time will teach one the right class of fleshing between well-marbled lean beef and those of excess fat or coarse fleshing.

**SHORTHORNS IN AUSTRALIA**

Although the Merino sheep has always played the main role in Australian economy, the livestock industry of this continent had its beginnings at a time when the fame of the Shorthorns was being blazoned forth throughout the world.

Naturally, many good specimens of the breed came to these shores and such was the adaptability of the Shorthorn that it soon extended its sphere of influence over the greater part of Australia.

Although the Ayrshire breeders of Australia published their first herd book in 1892 and the Jersey Society was founded in 1900, it was not until a few years later that Shorthorn breed societies came into being. The first to be formed was apparently the Milking Shorthorn Cattle Association of New South Wales which issued its first stud book in 1906. Other State societies came into being later but eventually they all merged into two main Commonwealth-wide societies, the Australian Milking Shorthorn Cattle Association and the Illawarra Milking Shorthorn Society formed in 1919.

**THE A.I.S. BREED**

The Illawarra Shorthorns were founded in the New South Wales district of that name and in the Illawarra Milking Shorthorn herd book Vol. 1, issued in 1927, the following account of the origin of the breed appears in the preface.
There are all sorts of tales told about the origin of the great Australian breed of dairy cattle which has come to be known as the Illawarra Milking Shorthorn. Greatness always had its traducers. There are always little men who, whispering, will pass on the things that have been whispered to them. There are those who have locked in the fastnesses of their memories, secrets which, if revealed, would rend the world in twain.

"These men whisper that there is Ayrshire blood in the Illawarra Milking Shorthorn cows of today. So there is! Everyone knows it. They tell, with their hands covering their mouths, that the rich red coats of some of the best cattle come from the Devons. Well, and if they do, does it matter? There is, doubtless, some Longhorn blood still filtering in to the present generation. The breed has a mixed foundation. It was built on a basis of Shorthorn, of Milking Shorthorns, aye! and on the deep-milking beautiful Bates Shorthorns that came to Australia in the thirties and forties of last century, but Ayrshire and Devon bulls were used for a surety.

"We have no records of how men bred their cattle in those days when they were cutting down the scrub and pushing out ... a type of cow that was suited to their requirements, and which was destined to enter every corner of the Commonwealth.

"They selected the best milkers, bred them to the best looking sons of other good milkers, culled—cattle were very cheap ... bought their neighbours' bulls and their neighbours' heifers until there came a time when they had established a type.

"From these dairy cows the Illawarra Milking Shorthorn of today is descended."

Because the Illawarras were not pure Shorthorns and because the other Shorthorn breed society claimed to be founded on pure Milking Shorthorn stock imported from Britain the two societies remained as separate bodies for some years.

In 1929, however, the progeny of some cows registered in the Illawarra Milking Shorthorn Herd Book were admitted to the Australian Milking Shorthorn Herd Book and soon after this the two societies amalgamated under the title of the Australian Illawarra Shorthorn Society. The Milking Shorthorn Cattle Breeders' Association of Victoria which had been formed in 1921 still remained as a separate body which later became known as the Dairy Shorthorn Association of Australia.

Here in Australia we have many excellent representatives of most branches of the Shorthorn family, from the pail-filling A.I.S. and Dairy Shorthorns to the low-set, weighty deep-bodied animals that would have delighted the eyes of Amos Cruickshank.

Just as the Scottish beef-producers value the Shorthorn for crossing with the Galloways and Highland cattle, so do we find that here in Australia our Beef Shorthorns—both horned and poll—are widely used to grade up mixed herds and to produce superior cross-breds from cows of many breeds.
Whether they are grazing on the lush pastures of our Southland or the million-acre cattle stations of Northern Australia, the “red, white and roans” are equally popular, as good “doers”.

The old breeders made sure that their animals gave the highest possible returns in meat or milk for a given quantity of food, and we find today that the Shorthorn will withstand hardships if necessary and has inbred recuperative powers which stand it in good stead when conditions improve.

A.I.S. CHARACTERISTICS

The following points to be looked for when judging A.I.S. cows are taken from a booklet recently issued by the A.I.S. Society.

GENERAL APPEARANCE

Constitution: As indicated by heart and lung room, apparent health and general appearance.

Shape or Conformation: Fairly light in front, but increasing in depth and width towards hindquarters with capacious well attached udder. Wedge-shaped viewed from front or behind.

Quality or Refinement: A general appearance of refinement, bone fine and of good quality. Hair of medium length and texture, skin of medium thickness, but mellow, elastic, and fitting loosely to the body.

Temperament: Active, but not nervous, as indicated by eyes and general movement.

Colours: Deep rich colours free from black or brindle markings. Colours preferred are: Rich whole red, rich red with little white on flanks or body and full rich roans.

Foreheads: Broad and slightly dished between eyes. Nicely moulded and narrowing slightly just below crown.

Ears: Of good length and fairly strong from eyes to muzzle.

Cheeks and Jaws: Fine and flat and very little loose skin underneath. Hair short.

Mouth and Under-Jaw: Mouth of medium size with lips not heavy. Under-jaw fairly strong and almost flush with muzzle.

Muzzle: Square, clean, flesh colour.

Nostrils: Fairly large and open.

Horns: Of medium size, not coarse and of a waxy or creamy appearance. Horns set directly upwards from base, known as “cooky” objectionable.

Ears: Of medium size, set on level, orange secretion inside.

Neck and Dewlap: Neck rather long and refined, well set on to head and shoulders. Flat on sides with clean throat. Dewlap fine and mellow to the touch and not too pronounced.

Withers: Well defined and prominent standing out above shoulders.

Shoulders: Fine and flat, nicely sloped and fitting closely to body, but loose in movements.

Chest: Fairly wide on floor. Full and well developed behind forelegs and continuing full to back of shoulders, giving plenty of heart and lung room.

Brisket: Should be fairly light and receding, set only slightly lower than underline of body.

Forelegs and Hoofs: Set wide apart, straight and rather short, bone of good quality. Hoofs of medium size.

Backbone: Prominent and open-jointed. Running straight from withers to root of tail.

Body: Of good carrying capacity in proportion to size of animal, making provision for necessary food capacity. Deep from hips to flanks.

Ribs: Broad, flat and well sprung, but not “hoopy” —open and running deep with a nice slope towards hindquarters.

Belly or Paunch: Well supported by ribs. Broad underneath, with prominent pin-bones.

Loins: Broad, long and strong, fairly free from muscular developments. Set slightly higher than hip-bones.

Hips: Fairly wide apart, spare of flesh and set slightly lower than backbone at loins.

Pelvic Arch: Long and pronounced with a nice slope on each side towards thurl-bones.

Rump: Of good length and width, with pin-bones fairly fine and wide apart, making provision for ease in calving. The top of pin-bones on a level setting with top of hip-bones. The rump should be as wide across front of thurl to thurl as at hips, and from pin-bones to hocks should be deep.

Thighs and Flanks: The thighs broad and clean. Flat inside and outside and incurring towards the hocks when viewed side on. Flanks, fine, deep and slightly arched.

Tail: Fairly long and tapering nicely to brush. Falling perpendicularly and set on nicely, not being too high, broad, or fleshy at setting.

Hind Legs and Hoofs: Set wide apart, straight, but making a slight angle forward at hocks when viewed side on. Hocks clean and well moulded, bone fine and flat. Hoofs of medium size.

Udder: The udder capacious but not pendulous and well attached back and front. The skin, fine, elastic, and of a nice orange tint, covered with short silky hair which is pronounced and visible. The base of udder should have slight gutter running from front to back, not across.

Fore-udder: Should come well forward out towards navel, well attached to the body, and when full extending the arch of flank in front.

Back-udder: Should run well up behind and have a broad and strong attachment. Udder cut in at back or rounding off abruptly at top is objectionable.

Teats: From 2½ to 3 inches long, placed evenly and slightly underneath the quarters, brown in colour. Thin “wormy” and bottle teats objectionable.

Milk-veins: Large and tortuous in front of udder and continuing well towards the front legs entering large wells, or double veined or diamond shaped with additional commercial wells. Prominent and visible veins on udder are desirable, indicating quality of udder and large blood circulation.

Escutcheon: True to type. Reversed hair silky to the touch. Long hair objectionable.

FRUIT FLY

Reports from the Department of Agriculture’s fruit fly inspectors indicate that satisfactory control of the pest is being maintained in commercial orchard areas, but heavy infestations are still being reported in some suburban districts. Among the host fruits recorded this season are citrus, apricots, peaches and mulberries. Fruit fly infestation in mulberries is of particular interest as until last year no official report had been made of fruit fly infestation in mulberries picked from the trees. On rare occasions, maggots have been found in masses of ripe fruit accumulating under the trees.