

SELECTION OF THE DAIRY COW BY CONFORMATION.

By

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THE typical dairy animal is widely different from the "beef animal", and an intelligent and careful selection is essential to successful dairy cattle and milk production.

A profitable cow is highly artificial in contrast to the natural and average one, and haphazard methods of selection do not accomplish successful results in her production. A rigorous selection is of prime importance.

Proficiency in selection of the cow by conformation is dependent on the powers of observation and judgment, and on one's familiarity with all the parts and characteristics of an ideal dairy cow. It is also further necessary that the co-relation between the parts of the body and the functions of the various body organs be understood.

The contrast between the typical dairy animal and the beef type is the most striking example of the differences in the parts which combine to give conformation to the two types, and the co-relation between conformation and function (*Vide* figs. 1 and 2). The distinction between these two types forms a good basis for the study of selection by conformation. The highly-fleshed beef animal with a natural tendency to become thickly fleshed in the region of the back, loin, thighs and with a similar thickness and fulness in the neck over the withers and shoulders and about the brisket, in contrast with the highly developed dairy animal with its angularity, leanness, and highly developed milk organs, signifies the fact that conformation is indicative of the beef qualities in the former and the dairy qualities in the latter.

One does not have to be confined to mature cows only in the selection of dairy cattle by conformation, since dairy conformation and the inherent milk production tendencies in distinct and improved dairy breeds of cattle have become so marked and definite to such an extent, they can even be observed and recognised to a greater or less degree in young calves and heifers.

A high regard for beauty in cattle and the desirability of suitable size, age, health, vigour and disposition, as well as undesirability of blemishes and abnormal characters, give further importance to a careful study of conformation in choosing cows for dairy purposes. The merits of the scale and the butter fat test too to indicate the milk production capacity should never be overlooked.

Animals of the typical dairy breed are quite similar to one another in conformation which is generally termed "Dairy Form" or "Dairy Type." The outstanding features of this type are—an angular form due to a comparatively thin development of flesh over all parts of the body, a more or less distended condition of the abdominal part of the body, commonly called the barrel, and a large development of the udder or milk organs.

The ideal dairy cow is described as wedge-shaped or triangular in form. This is quite characteristic and could be readily recognised in all good dairy cows. A view of the side presents one triangular outline of the body, which is formed by the top and bottom lines converging as they extend forward (fig. 2). The bottom line in this instance should extend from the bottom side of the udder to the throat and will not run parallel with all the underline of the body.

A line between the hip points, and lines from these points to the point of the withers or top of the shoulders, produces a triangle indicative of the form of this part of the body (fig. 3).

Lines extending down over the shoulders at each side of the body from the top of the withers to a line joining the points of the shoulder form a third triangle and indicate the wedge-shape of the body in the fore-quarters (fig. 3).

These three triangular outlines of the body of the dairy cow which one may see from the side, the rear and the top are a contrast to the rectangular outline that will be easily recognised in all well developed beef animals.

Dairy conformation is further characterised by additional features by a close scrutiny of the head and adjoining parts. The head of the dairy cow is comparatively lean and clear-cut in all parts and relatively longer than the head which characterises a good beef animal.

The forehead is dished, the eyes prominent and full of expression, the muzzle wide with strong lips and open nostrils and the jaws lean and sinewy. The neck of the dairy cow is comparatively thin and long, and neat at its juncture with the head, straight at the top and nicely blended with the shoulders which are comparatively lean, nicely laid up to the body, rather sharp and narrow at the withers (fig. 6). The under side of the neck should preferably be without too much dewlap and the brisket should be lean and sharp or V shaped rather than full and round, which ordinarily appears in a beef animal (fig. 8, 4 and 5). A straight broad back, a broad level loin, and hips and thurls that are wide apart and high characterise a very desirable cow. A long wide level rump and thighs that are wide apart, thin and incurving with an abundance of room for the udder are also desirable. The barrel or portion of the body between the fore and hind quarters should be long, deep and roomy. Ribs that are long, far apart and well sprung together with fore and rear flanks that are deep and comparatively full give depth, length and width to the body and a capacity for food consumption.

A large pliable udder, equally well developed in all the quarters and extending well forward on the body and high up behind and between the thigh is a prominent feature in dairy cows. The udder should be well provided with four teats placed well apart and of medium size. When the milk is drawn, the udder should be left soft and pliable. A thin covering of fine silky hair over the entire udder is desirable. The milk veins which extend from the udder and under the thorax should be large, tortuous and branching. The milk wells through which these veins enter the thorax should be large.

The best dairy cows possess besides the proper form, a typical disposition or "Dairy Temperament". This peculiar inherent characteristic enables her to convert feed into milk.

They should be quiet, docile, motherly cows that are able to produce large quantities of milk for their offspring and yet perfectly willing to give the milk to the milker instead of the calf.

Besides the above there should be every indication of a healthy, vigorous constitution which is the mainspring of all activity. This is important not only from the standpoint of large and profitable production, but from the standpoint of these products being suitable for human consumption.

Index to Fig 7.

1	..	Forehead	..	Broad and dished
2	..	Neck	..	Long and refined
3	..	Withers	..	Sharp and narrow
4	..	Shoulders	..	Smooth and sloping
5	..	Croup	..	Full and smooth
6	..	Ribs	..	Well-sprung, long and far apart
7	..	Back	..	Broad and straight
8	..	Loins	..	Level and broad
9	..	Barrel	..	Long, broad and roomy
10	..	Hips	..	Prominent and wide apart
11	..	Rump	..	Long, straight and level
12	..	Thurls	..	High and wide
12A	..	Pin-bones	..	Prominent and well apart
13	..	Tail	..	Long and tapering
14	..	Escutcheon	..	High and wide
15	..	Thighs	..	Thin and in-curving
16	..	Flanks	..	Deep and full
17	..	Rear-udder	..	Full and attached high and wide
18	..	Hind legs	..	Set well apart
19	..			
20	..			
21	..	Teats	..	Right size and well apart
22	..	Fore-udder	..	Large and well developed
23	..	Mammary veins	..	Long, tortuous and branching
24	..	Milk-wells	..	Large and numerous
25	..			
26	..	Fore-legs	..	Straight and well set under
27	..	Heart-girth	..	Large
28	..	Chest	..	Broad and deep
29	..	Brisket	..	Lean and "V"-shaped
30	..	Throat	..	Clean
31	..	Jaw	..	Lean and sinewy
32	..	Nostrils	..	Large
33	..	Muzzle	..	Wide
34	..	Face	..	Long and clean-cut
35	..	Eyes	..	Large and bright
36	..	Ears	..	Of excellent texture

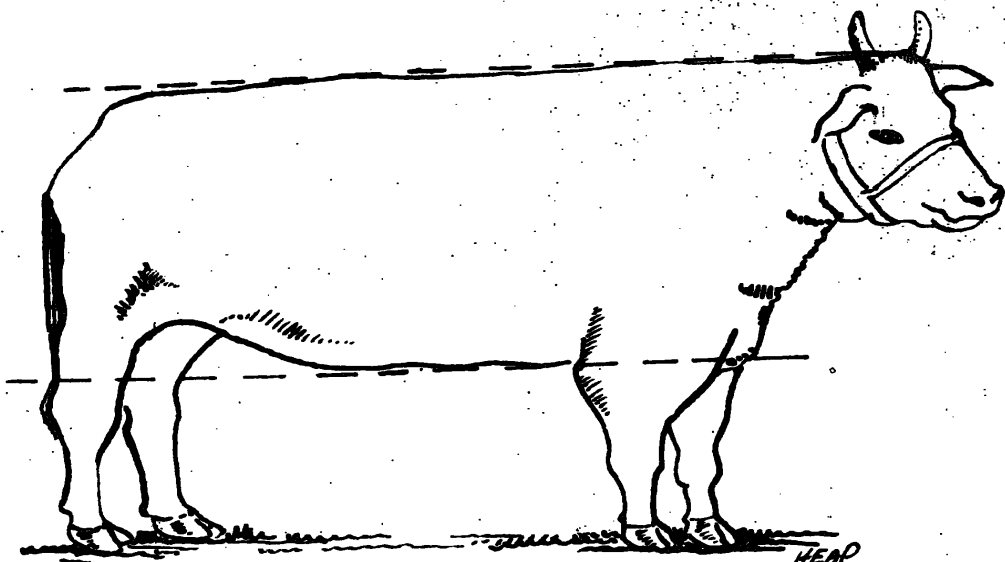


Fig 1. Beef type with no wedge.

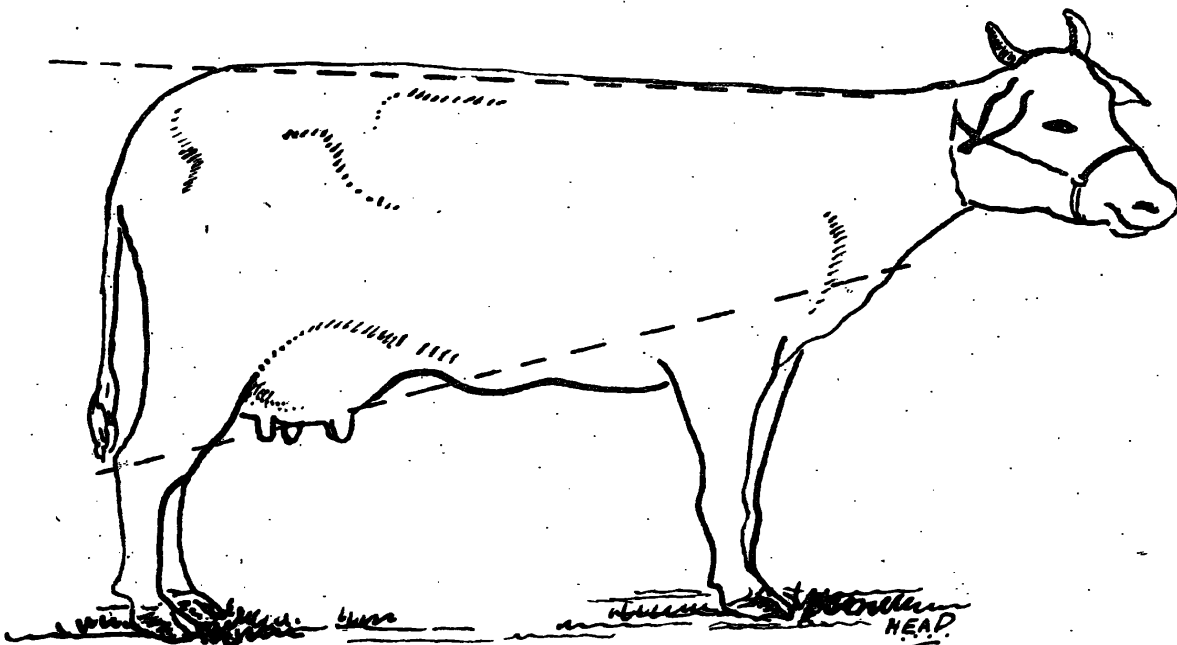


Fig 2. Milch type with Side-Wedge.

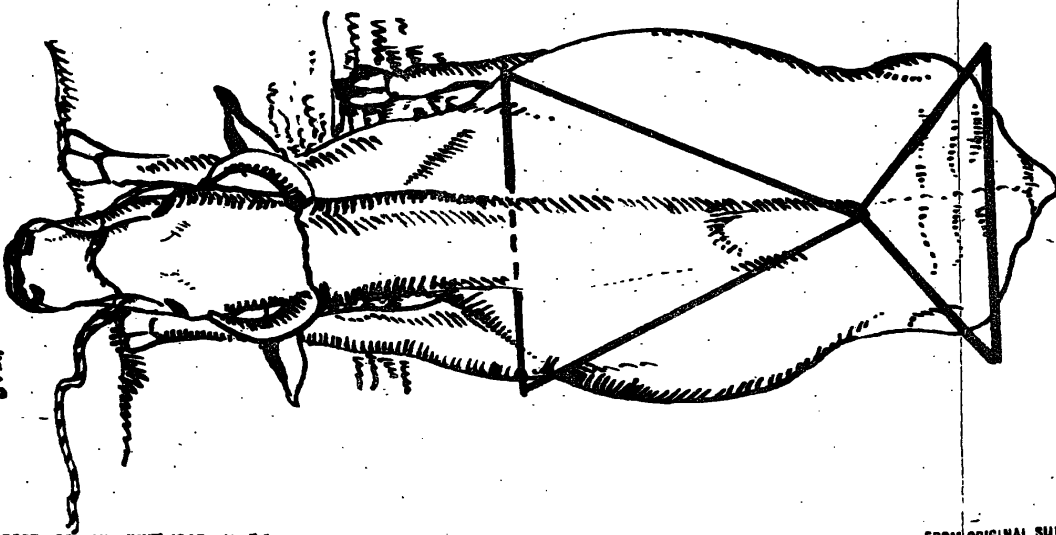


Fig 3 Milch type with hind-quarters & Fore-quarters Wedge

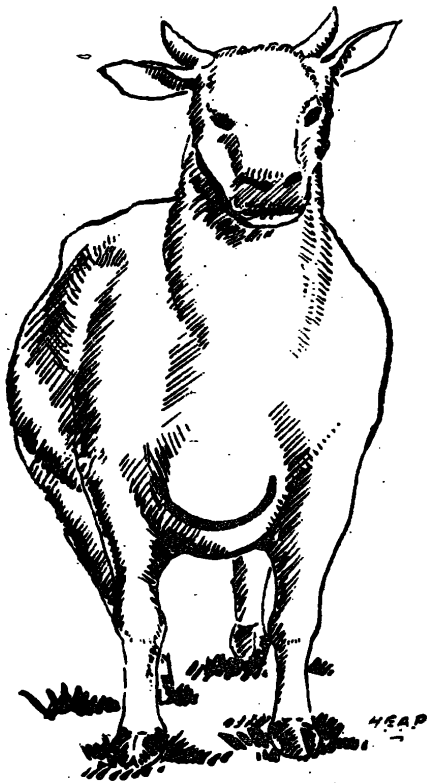


Fig.4. Beef type with "U" Shaped Brisket thickly fleshed

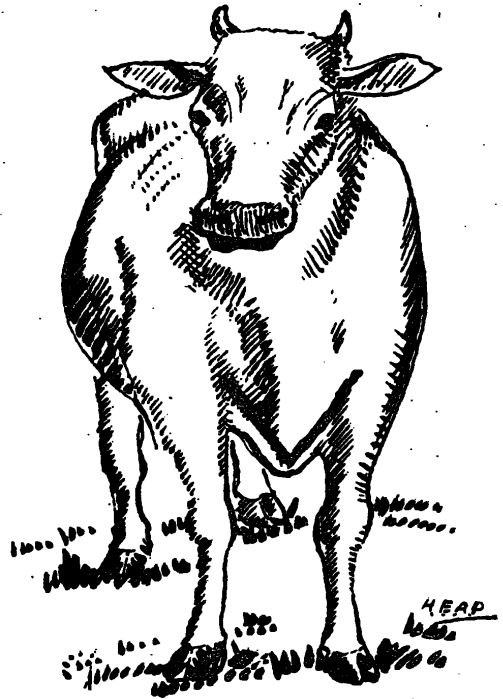


Fig.5. Milch type with long lean head & "V" shaped brisket.

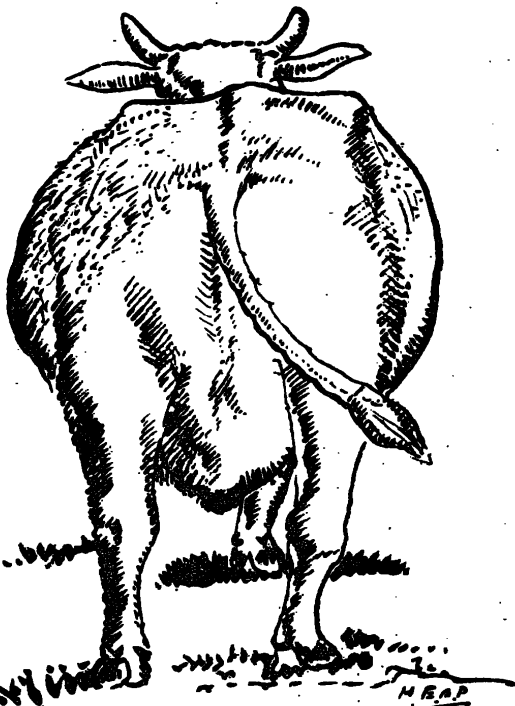


Fig.4a. Beef type with hind-Quarters thickly-fleshed.



Fig.5a. Milch-type lean, angular & Marked Udder development.

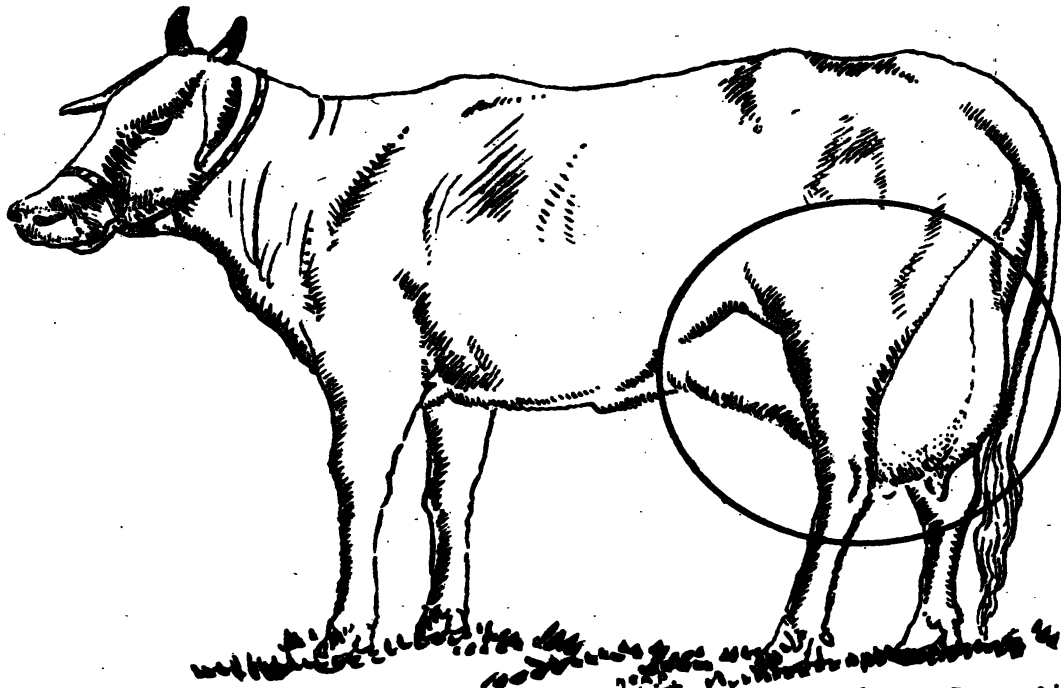


Fig.6. Good type of Udder balanced, well-proportioned & pliable.

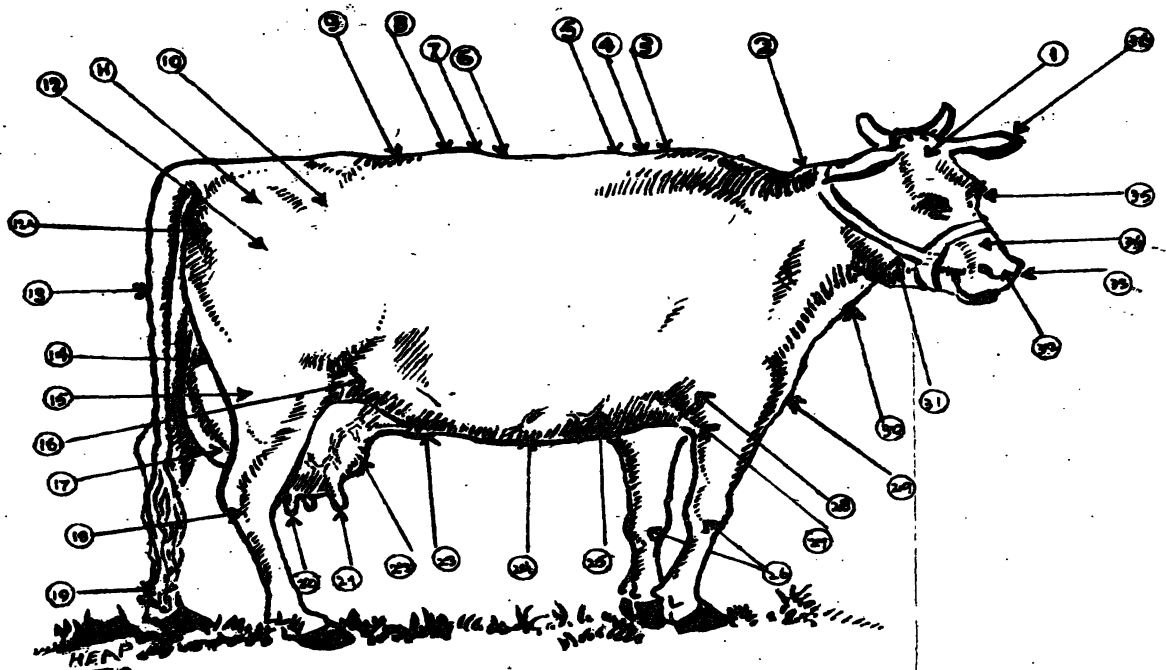


Fig.7. Various points in a Dairy-Cow.
(vide Index)