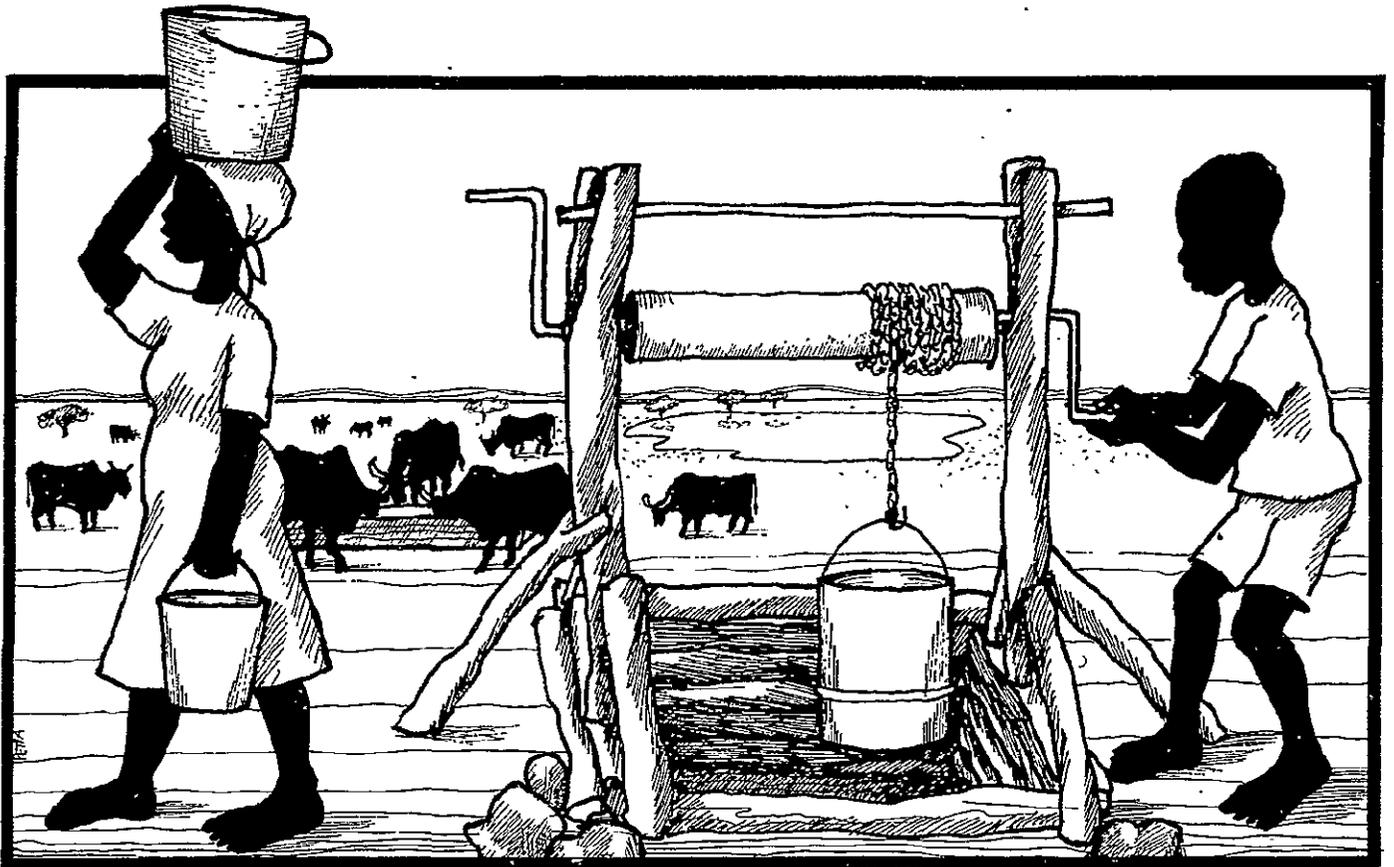


# Rating Cattle for Physical Condition



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WATER POINTS SURVEY PUBLICATIONS

1. Emery Roe. 1980. Development of Livestock, Agricultural and Water Supplies in Eastern Botswana Before Independence: A Short History and Policy Analysis. Cornell University Rural Development Committee, Occasional Paper No. 10, Ithaca, New York.
2. Charles Bailey, Louise Fortmann, and Emery Roe. 1980. Key to Water Points Survey Maps. Ministry of Agriculture, Gaborone, Botswana.
3. Charles Bailey. 1980. Keeping Cattle and the Cost of Water in Eastern Botswana. Ministry of Agriculture, Gaborone, Botswana.
4. Louise Fortmann and Emery Roe. 1981. The Water Points Survey. Ministry of Agriculture, Gaborone, Botswana.
5. Louise Fortmann and Emery Roe. 1981. Water Use in Eastern Botswana: Policy Guide and Summary of the Water Points Survey. Ministry of Agriculture, Gaborone, Botswana.
6. George Wellington. 1981. Rating Cattle for Physical Condition. Ministry of Agriculture, Gaborone, Botswana.
7. Elaine Aderhold. 1981. Rangeland Monitoring Methodology Based on Landsat Data: Case Study in the Republic of Botswana. Unpublished Masters Thesis (Cornell University). Ithaca, New York.
8. Charles Bailey. 1981. Keeping Cattle and the Development of Water Resources in Eastern Botswana. Unpublished PhD. Dissertation (Cornell University). Ithaca, New York.
9. Louise Fortmann and Emery Roe, "Settlement on Tap: The Role of Water in Permanent Settlement at the Lands", in Settlement in Botswana: The Historical Development of a Human Landscape, (R. Renee Hitchcock and Mary Smith, editors), Heinemann, In Press.

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RATING CATTLE

FOR

PHYSICAL CONDITION

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## RATING CATTLE FOR PHYSICAL CONDITION

### Introduction

This booklet describes a method for making a record of the physical condition of individual cattle. When a person rates, or judges, cattle for their physical condition, he or she makes a decision on how good or bad each animal appears. Other things being equal, a greater amount of flesh will be apparent when cattle have had all of the feed and water that they need. The cattle will, of course, be in poor flesh when feed and water have been less than the amounts needed for good growth and body maintenance. Thus this evaluation or judgment of cattle according to condition scores will be controlled by how much flesh can be seen on the cattle.

When the person making the cattle evaluation has gained some experience through practice with the method of rating, records can be made of how good or poor individual cattle are in condition on the day they are judged.

To be rated correctly, each animal must be studied carefully. Many times the best opportunity to study the cattle will be at the place where they are gathered by the herdsmen. This will often be near a watering place or at a kraal.

### The Body Parts

By using the commonly accepted names for the body parts of cattle, persons learning to use the cattle condition score can compare their impressions with one another. Through comparing impressions and by practice, judges should learn to use the condition scores in a uniform manner. Thus it is good to start with a review of the commonly used names for the body parts as are shown in Figure 1.

### Finish and Fleshing

The term "finish" refers to the degree of fatness in the animal. That is to say that one with more finish is an animal with more overall fat. The term "fleshing", on the other hand, refers to the natural flesh or muscle present. These two terms, "finish" and "fleshing", are very closely associated because in cattle with a higher level of condition, fat is present throughout the muscles. This fat within and between the muscles gives a more plump appearance to the cattle. Greater amounts of natural fleshing adds even more to the plumpness, the fullness and the resulting bulging of the body. The greatest amount of plumpness can be seen in a heavily muscled animal with abundant amounts of fat.

It is good to understand that animals in very poor condition will have lost practically all of their body fat and only the natural flesh or muscling remains. In the very poorest condition, such as may occur with cattle during a severe drought or at the end of a long and difficult trek, some of the natural flesh may have been lost resulting in some wasting of muscles. Such cattle as these can be described as being extremely poor in flesh with no apparent finish. Thus these cattle would be given a very low physical condition score. The pictures in this booklet have been selected to show the wide differences that can exist between cattle of the best and of the poorest physical condition.

### **Body Type**

Body type refers to characteristics such as body size, shape and color, size and shape of horns, presence or absence of a crest, and also the general appearance of the head and other features. Sometimes all of these characteristics taken together are referred to as "breed type" when they characterize a particular breed. A Tuli, a Brahma and a Simmental each have distinctly different body types. Cattle within each of these breed types could have good or poor physical condition depending upon the feed and water that has been available to them. Thus the cattle condition scores do not relate to how near or how far a cow or a bullock may be to the ideal type for a particular breed. However, the cattle condition scores do relate directly to the amount of finish and flesh present.

Proponents of a particular breed type may believe that their favored breed has a greater amount of natural fleshing and muscling. This may or may not be true. However, it will help to keep in mind that the condition score system permits an evaluation of the physical condition without any special consideration to breed type. It may be that one particular breed type will be rated higher in condition than another breed type when each has been managed under similar conditions with similar levels of stress. The judge must evaluate each individual for its particular level of condition. Obviously if the conditions of available feed, water and general health change, the cattle condition scores will be different at a later date.

### **The Rating Scale for Condition**

The cattle condition scores cover a range of seven. Score Number 7 is associated with the very best condition; Score Number 1 the poorest. These extreme top and bottom scores will seldom be found. Score Number 7 only results from feeding cattle for long periods until they are completely fat from eating highly concentrated diets. Score Number 1 occurs when cattle have been seriously deprived of adequate feed and

water for a long period of time and may also have been infested with parasites. In other words cattle of Score 1 are extremely thin and their muscles have been depleted by deficient nutrition and often also by parasites.

Scores of Numbers 2, 3 and 4 are more likely to be seen among the cattle during years of average rainfall. These scores are likely to cover the practical, working range of the rating scale, but Score Numbers 1, 5, 6 and 7 may be found under special or unusual conditions.

The sketches in Figure 2 can help to remind persons judging cattle of the extreme differences that exist in the amounts of flesh and muscling between Score Number 1 and Score Number 7. The prominence of the bones is exaggerated in these sketches. However, the relative prominence of bones can be very helpful to judges as they evaluate the amount of flesh and muscling present.

Score Number 7: Cattle that are Number 7 are fat animals and are also full muscled. That is, they show some bulging of the muscles in the arm, forearm, rump, and round. The muscles will be full in the back and loin. There will be deposits of fat in the brisket, in the scrotum of the ox or in the udder of the heifer. Fat accumulation will also show as it causes a lowering and thickening of the rear flanks. The ribs will be completely covered with flesh so that the rib bones will be only slightly, if at all, visible.

Examples of Score Number 7 are shown in Figures 3, 4 and 5. Figure 3 shows the condition of a very fat female. Her score is at the top of the scale as evidenced by the thickness and plumpness to be seen throughout her body. Particularly note the fullness at the back, the loin and at the pin bones. Her body form is very smooth at the hook bones. Her relatively low rear flank is additional evidence that she is Score Number 7.

Figure 4 is a fat steer. The evidence of fat is seen by the fullness in the back, loin and by the smoothness at the pin bones. The amount of muscling in the round is slightly less than the amount typical of Score Number 7. From all that can be seen in the general fullness of body, this steer has a condition Score Number 7.

Figure 5 is also a fat steer. This steer is rather heavily muscled in addition to being fat. Note that the fat is indicated by the fullness over the ribs and by the low

rear flank. Fatness is also evident from the fullness next to the pin bones. Although the hook bones can be seen, they are not very pronounced. This steer is Score Number 7.

Score Number 6 &  
Score Number 5:

Cattle that are Score Number 6 are one step lower in their amount of fat and muscling than those in Score Number 7. Score Number 5 cattle are one step lower than Score Number 6. Judges will recognize these successive steps in condition as they study the condition of cattle that have benefitted from better than average feeding. Cattle of these upper condition scores are expected to be found among cattle being fattened in feedlots in preparation for slaughter.

Figure 6 is a steer well covered with fat along his top, that is to say over the top of his shoulders, over the ribs and over the loins. The bulging of flesh next to the pin bones and over the shoulder also indicates fat. Muscling in the round is not outstanding, but the general condition of the steer establishes his score as Number 6.

Figure 7 pictures a high quality young bull in unusually good condition. The bulging muscles can be easily seen in the round. The wide, full top proves that this animal is fat. Note the deep rear flank which shows fullness from fat. This young bull is Score Number 6.

Figure 8 shows a steer of Score 5. Even though there is less than the desired amount of muscling in the rump and round, the fat covering as can be seen over the ribs is clearly sufficient for Score Number 5. Note that the brisket shows thickness from fat.

Figure 9 is of a steer with some suggestion of sharpness of bones at the point of the shoulder, but there are adequate indications of fat along the back and loin, over the ribs and in the brisket for the steer to be Score Number 5.

Score Number 4:

Cattle which receive a Number 4 will appear medium in flesh. That is their muscles will be moderately plump and attractive but will not show the fullness seen in Numbers 5, 6 and 7. There will be moderate fat deposits that can

be seen by associated lower rear flanks and usually a moderate fullness of the ox scrotum or the udder of the heifer. The ribs will be well covered with flesh but the positions of the ribs will be more easily seen than in Number 5 or Number 6.

Figure 10 pictures a steer of Score Number 4. Even though the amount of muscling that can be seen in the loin, rump and the rounds is slightly less than is expected in Score Number 4, the indications of fat over the ribs and the shoulder compensate for this slight deficiency. In total balance of indicators of condition, the score is Number 4.

Figure 11 is a female with a condition score of Number 4. This animal shows a general fat covering that can particularly be seen over the ribs. Rather good muscling can be seen in the round. She shows evidence of having received good care and management. Her overall condition in flesh indicates Score Number 4.

Score Number 3: Cattle which receive a Number 3 are not as well fleshed as Number 4. That is, their muscles will show only modest fullness. This means that although the bone frame of the animal is modestly covered with some flesh, it is less fully covered than in the more attractive Number 4. The bones will be prominent at the hook bones, pin bones, at the lateral edge of the loin (lumbar bones) and shoulder bones. The ribs will be more prominent than in Number 4. The general appearance of the animal will suggest modest acceptability for slaughter but at the same time the condition indicates that there are deficiencies in fleshing.

Figure 12 shows a steer with a Score 3. This steer has indications of considerable natural muscling but likely the recent grazing conditions available to this steer limited the nutrients that the steer could use for fattening. He may have been in better condition at other times when more forage was available. The extent to which the bones of the back, loin, rump and ribs are evident and the limited amount of fat that seems to be present indicate Score Number 3.

Figure 13 is a picture of a Score 3 that is bordering on the edge of the condition of Score 2. That is to say the steer in Figure 13 is a Low Number 3 in condition score. Although the bones of the loin and rump are rather sharp, there appears to be sufficient

muscling in the round and enough suggestions of fat on the ribs to justify a score of Number 3, but on the lower side of Number 3.

Score Number 2: Cattle that receive Number 2 are sharply deficient in flesh and fat. The muscles are in general more flat than in Number 3. The neck is slightly thin. The bone frame of the animal is very prominent. The hip bones, pin bones, ribs, shoulder bones and the lateral edge of the loin (lumbar bones) are distinct. Although the general appearance of the animal suggests pronounced deficiencies in flesh, this condition is not as severe as in Number 1. The muscles of the round and loin are so flat that they tend to be dished or to have a concave contour.

Figure 14 shows a dry cow as indicated by her udder. She is no longer lactating. Her thin neck, sharp bones as seen in the rump, loin and shoulder together with the flatness of muscles in the round, loin and shoulders make her a good example of a condition score of Number 2.

Figure 15 illustrates a steer that has a Score Number 2 but on the upper side of the range within Score Number 2. In other words, this steer is a High Number 2. The sharpness of the bones along the top of the back, loin and rump show that the muscling is deficient. The round muscles are flat. The hook bones are prominent.

Figure 16 shows a very thin heifer or cow. This thin animal has very flat muscles as can be seen particularly along the back, the rump and in the rounds. However, there is sufficient flesh overall to justify a score of Number 2.

Score Number 1: Cattle that receive a Number 1 Score have wasted muscles and extremely prominent bones. The bones appear to be particularly sharp along the back, at the hook bones and at the pin bones. The shoulder bones are very prominent. The bones of the loin are very sharp and the rib bones are extremely pronounced. The neck is very thin. The animal is extremely skinny and shows no fat.

Figure 17 is a picture of a Score Number 1 steer. The very flat muscles, the high flanks and general prominence of the bones are typical of Score Number 1. Note the visibility of the ribs.

Figure 18 is a Score Number 1 cow. This lactating cow is so extremely deficient in flesh and finish that it is obvious to any judge. Note the extreme prominence of the shoulder bones, ribs, hips and hooks. The leg muscles are wasted. In addition to showing an example of Score Number 1, this picture also illustrates that lactation is an additional stress on a cow. Because of the additional stress from lactation, cows showing evidence of milk in their udders usually should not be included in a study of the overall physical condition of a herd of cattle. In this case the extremely poor physical condition likely resulted from insufficient feed, too little water and excessive parasite infestation.

Figure 19 shows an example of a non-lactating cow in very poor flesh with a physical condition score of Number 1. The extreme prominence of the bones at the pins, hips, loin and ribs together with the very flat rump and round, the high flanks and the thin brisket all illustrate an animal of Score Number 1.

### **Special Considerations**

When the objective of the use of the cattle condition scores is to relate the cattle condition to the past availability of feed, grazing and water, lactating cows and nursing or recently weaned calves should be excluded from the evaluation.

Judges can increase their skill in cattle condition scoring and can develop the ability to score in a standard, uniform manner through occasional practice sessions with other judges. Exercises in practice scoring allow judges to compare individual scores and to learn why errors may have been made on individual evaluations.

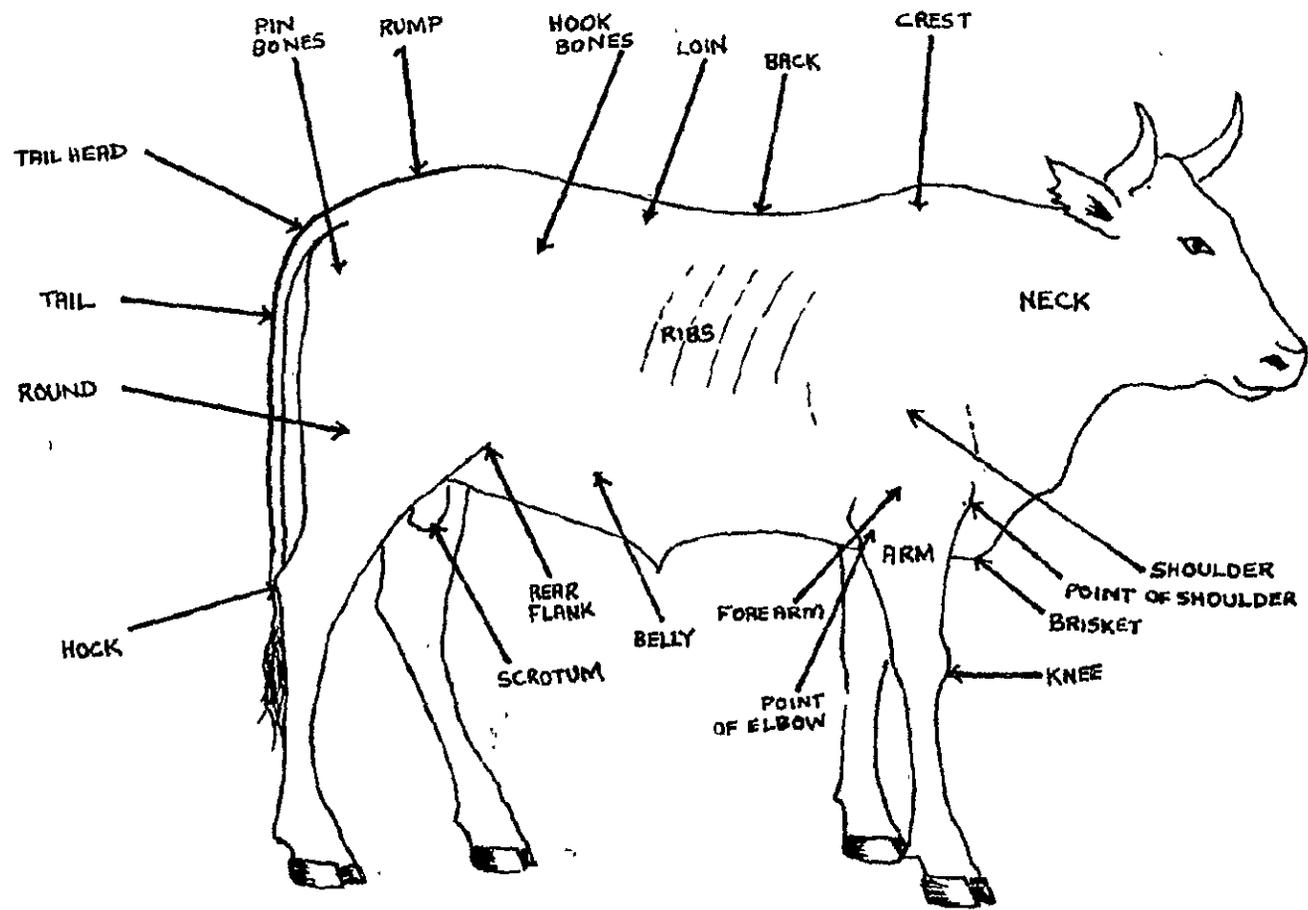
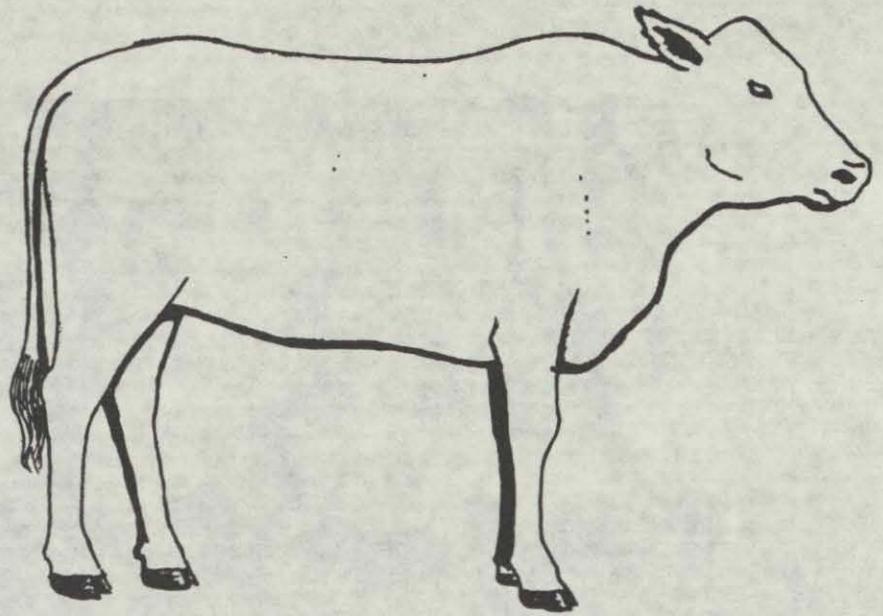
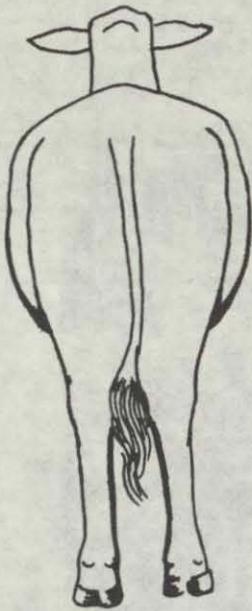
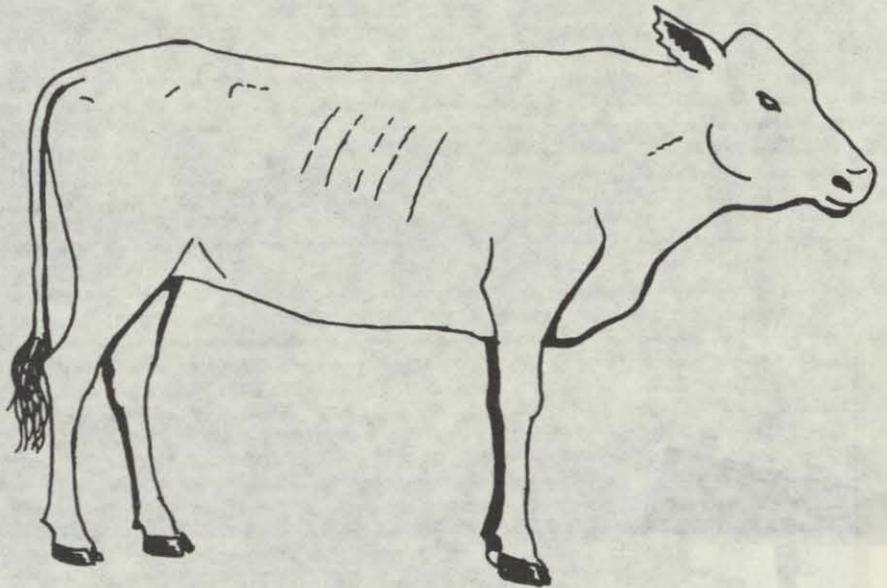
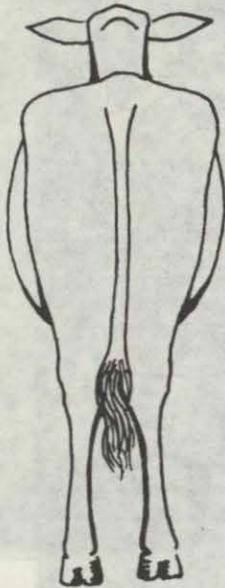


Fig. 1. Common names of the body parts of cattle.

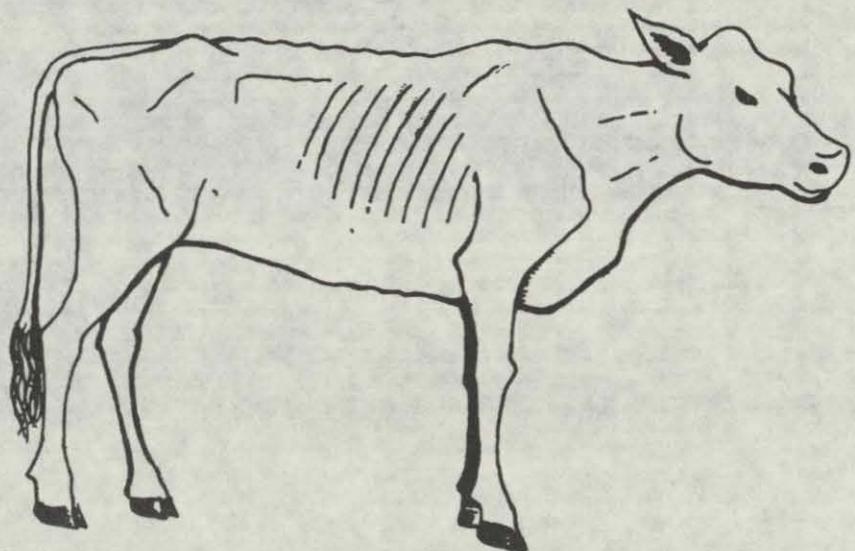
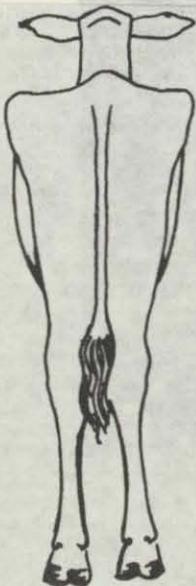
Fig. 2. Sketches of the cattle condition scores.



SCORE NO 7



SCORE NO 4



SCORE NO 1



Figure 3    Score No. 7

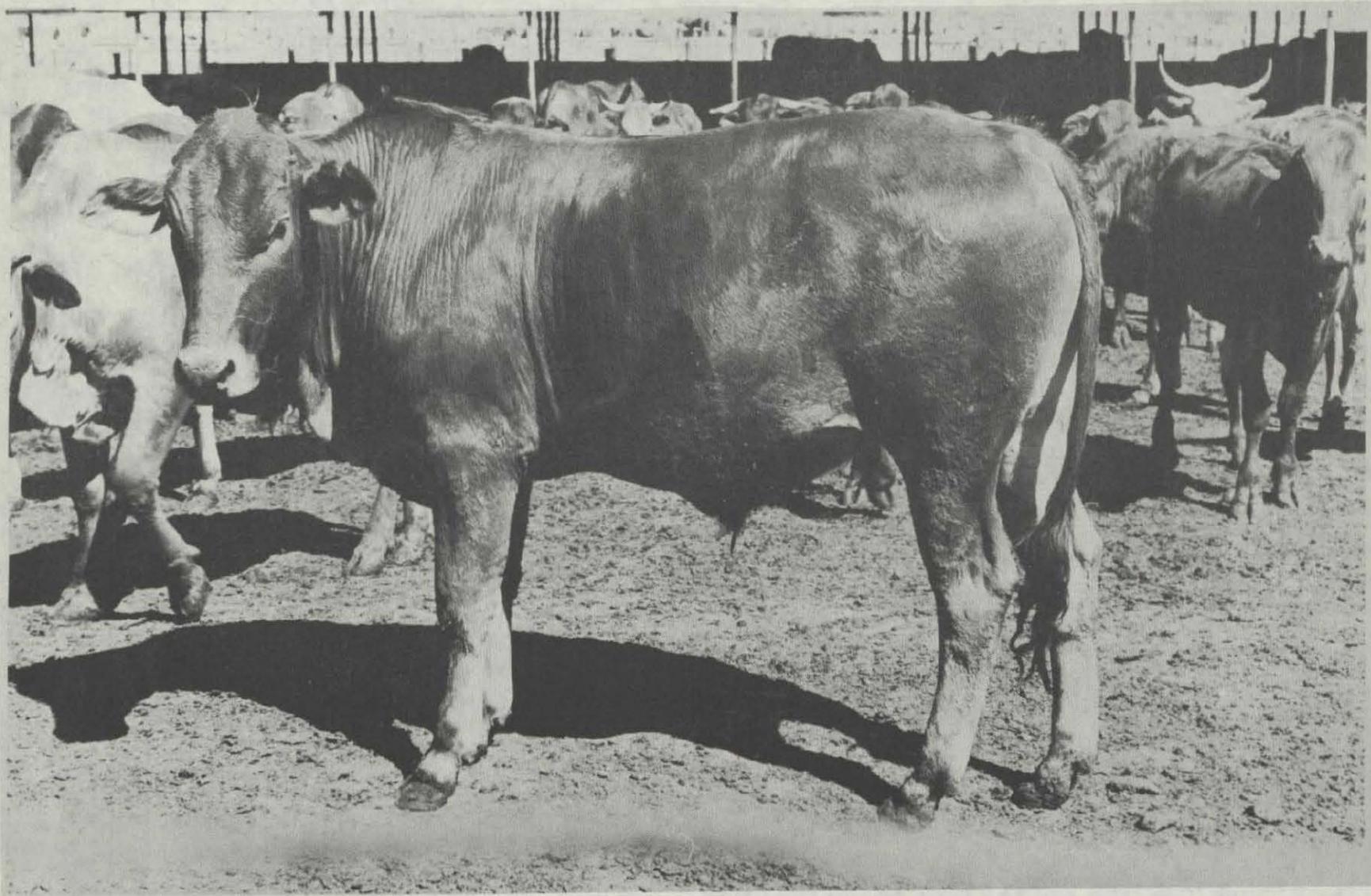


Figure 4 Score No. 7

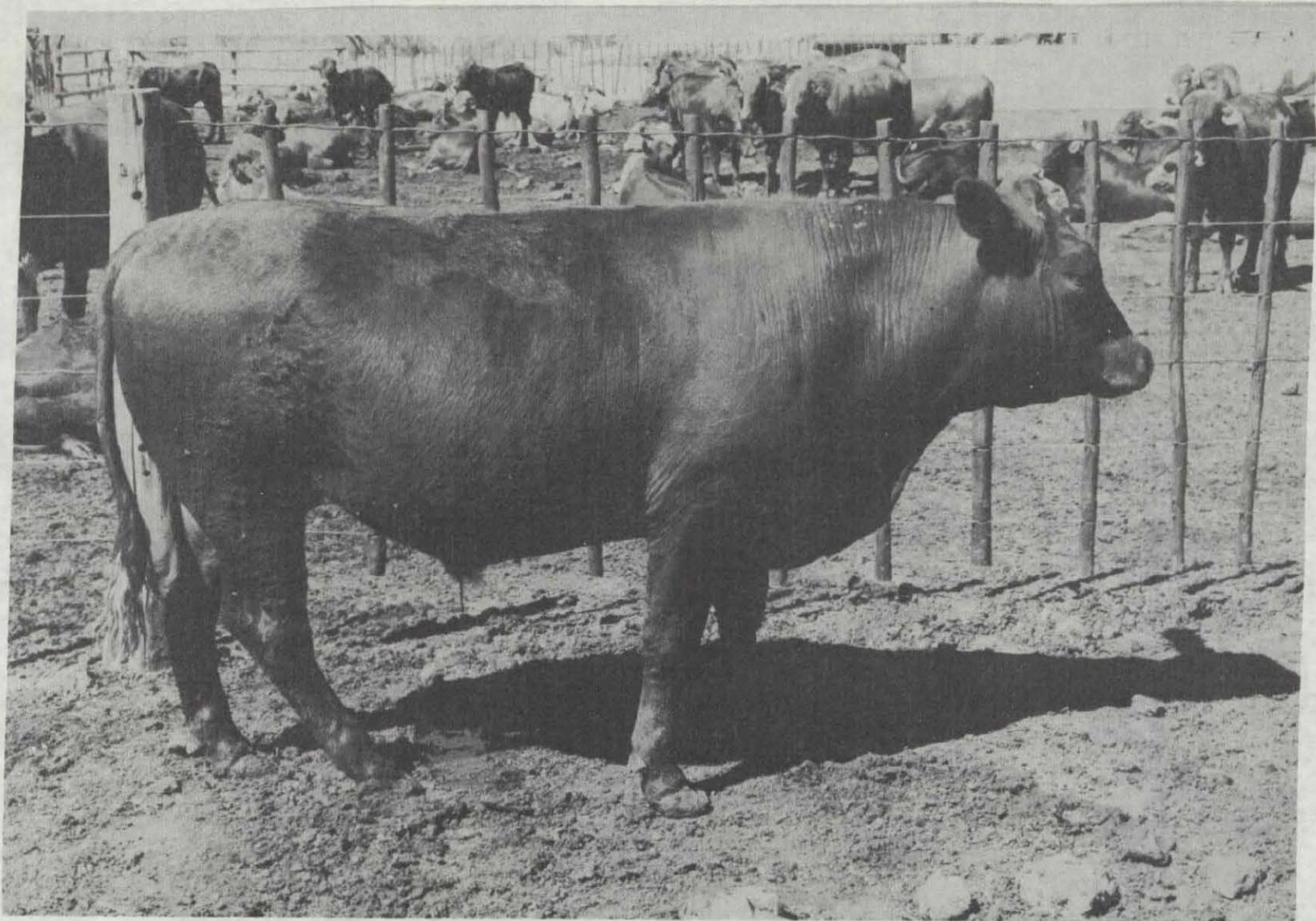


Figure 5    Score No. 7



Figure 6 Score No. 6



Figure 7 Score No. 6

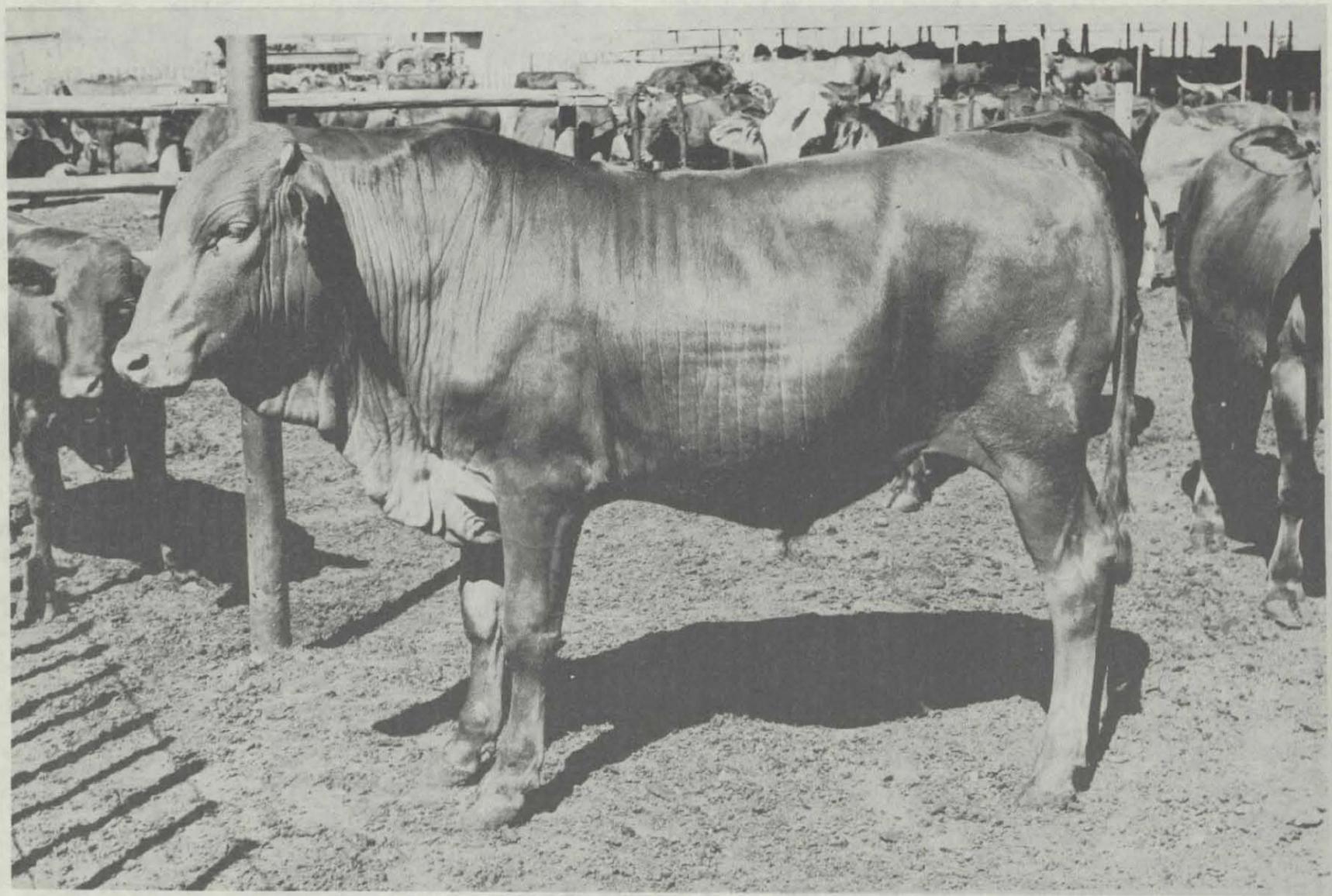


Figure 8 Score No. 5

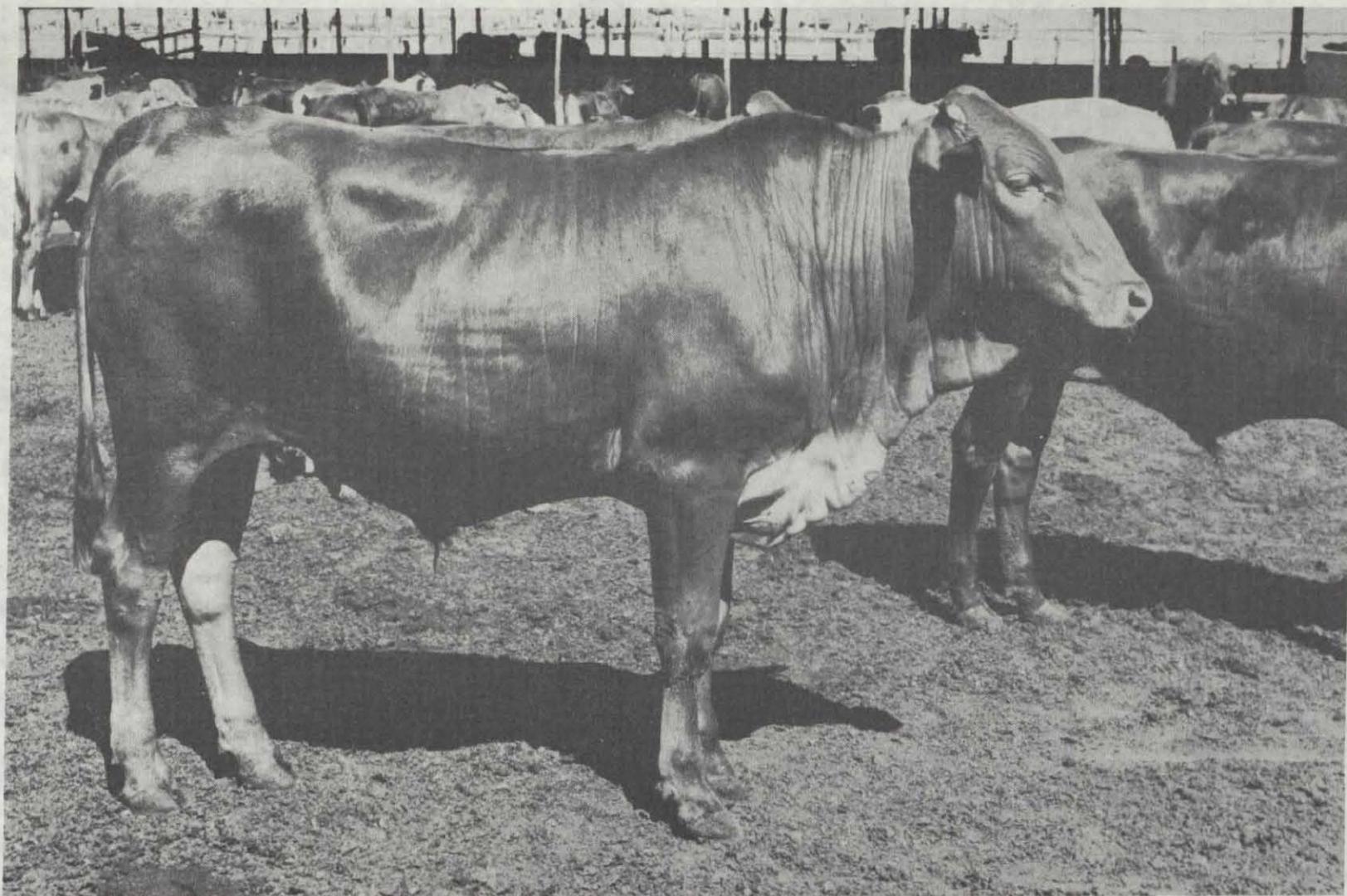


Figure 9 Score No. 5

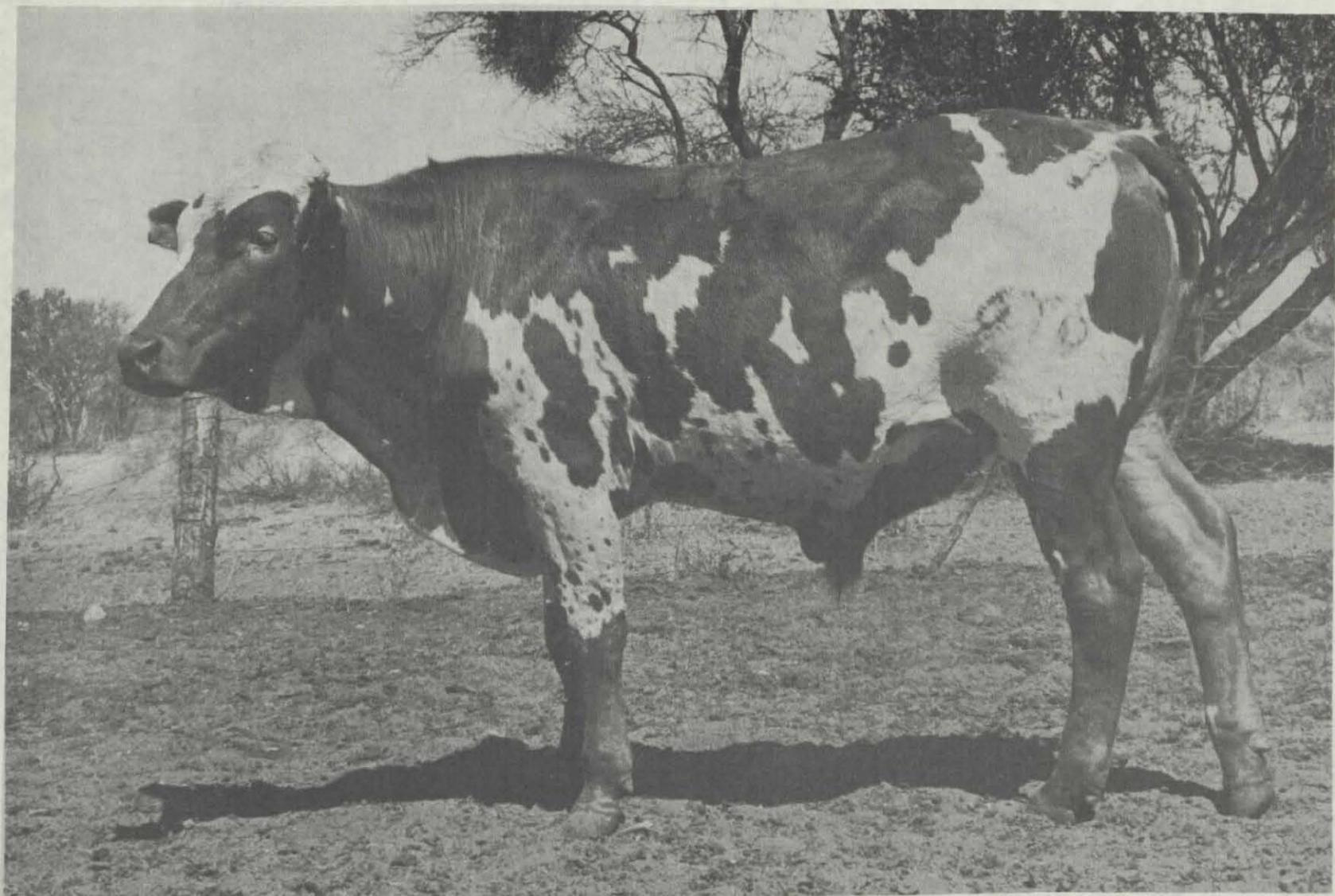


Figure 10 Score No. 4

19

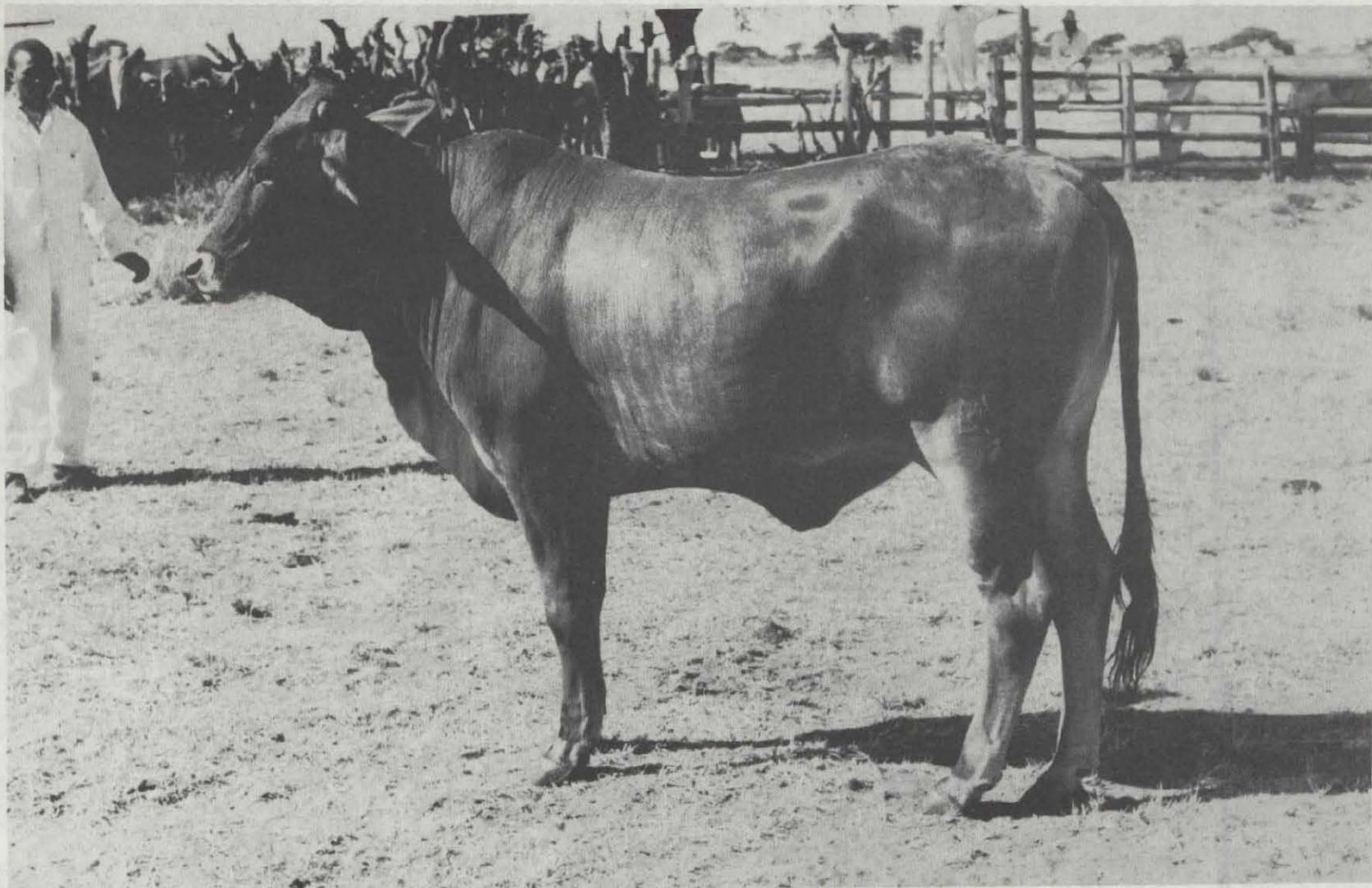


Figure 11 Score No. 4

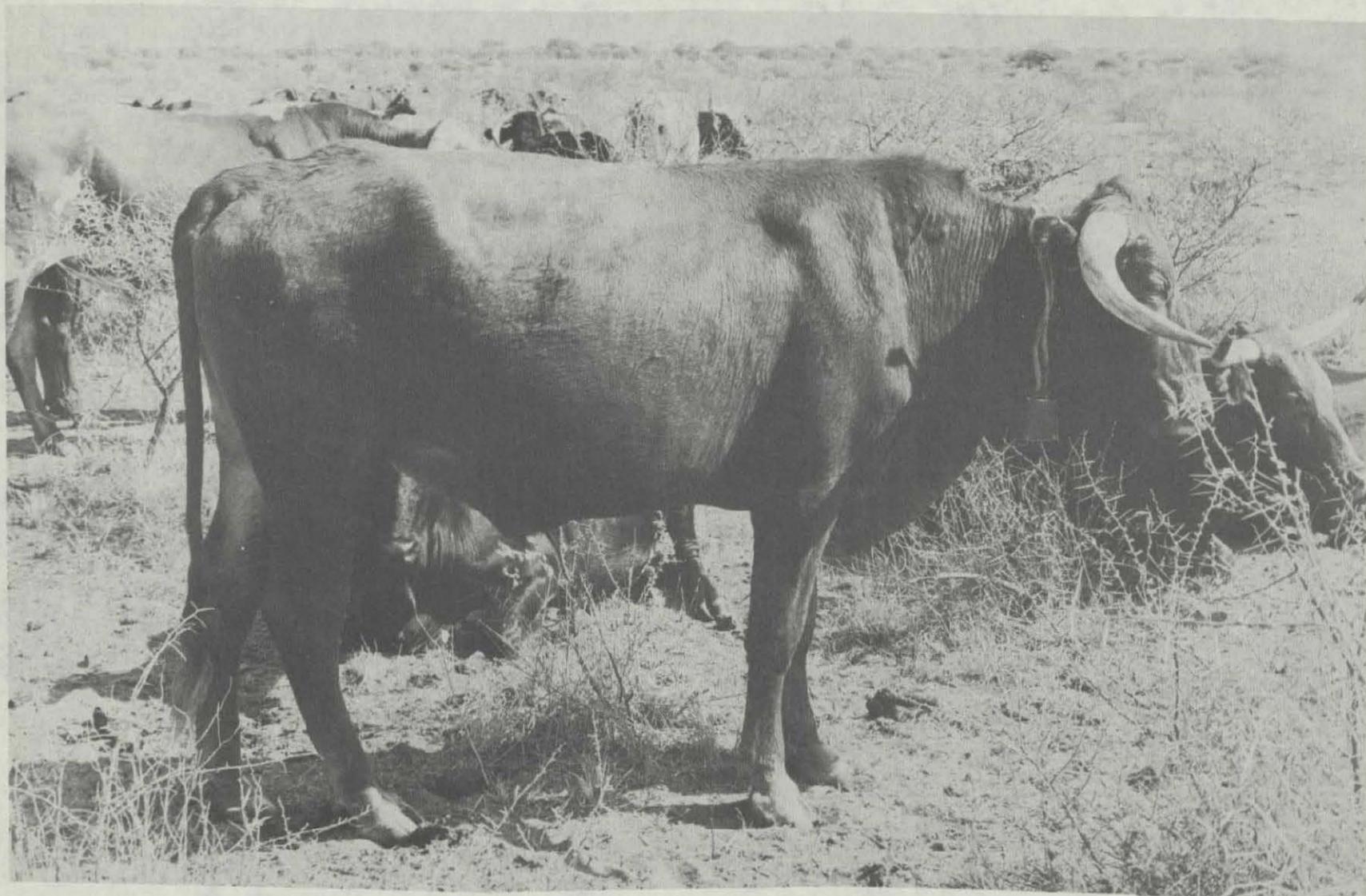


Figure 12 Score No. 3

21

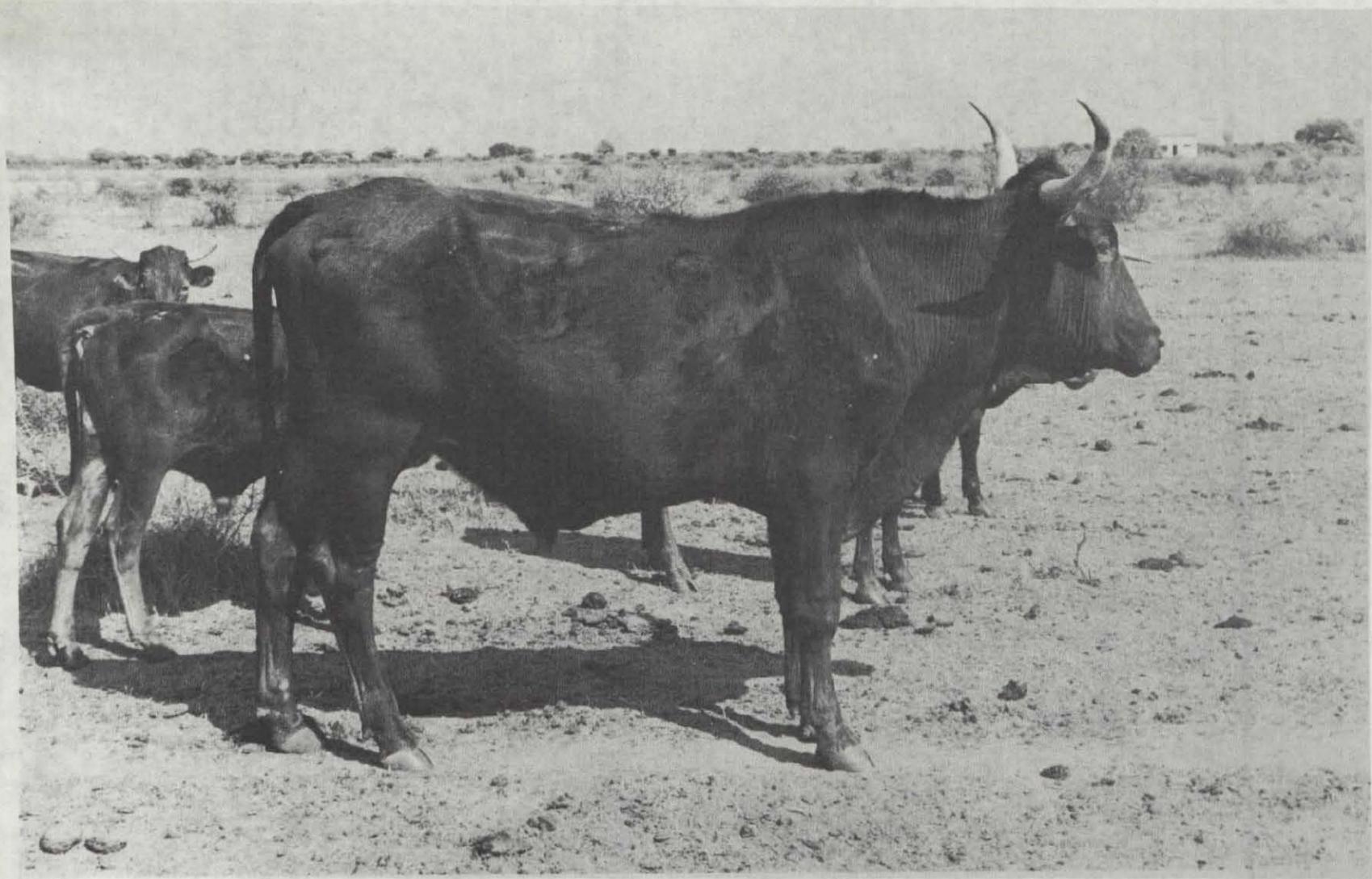


Figure 13 Score No. 3

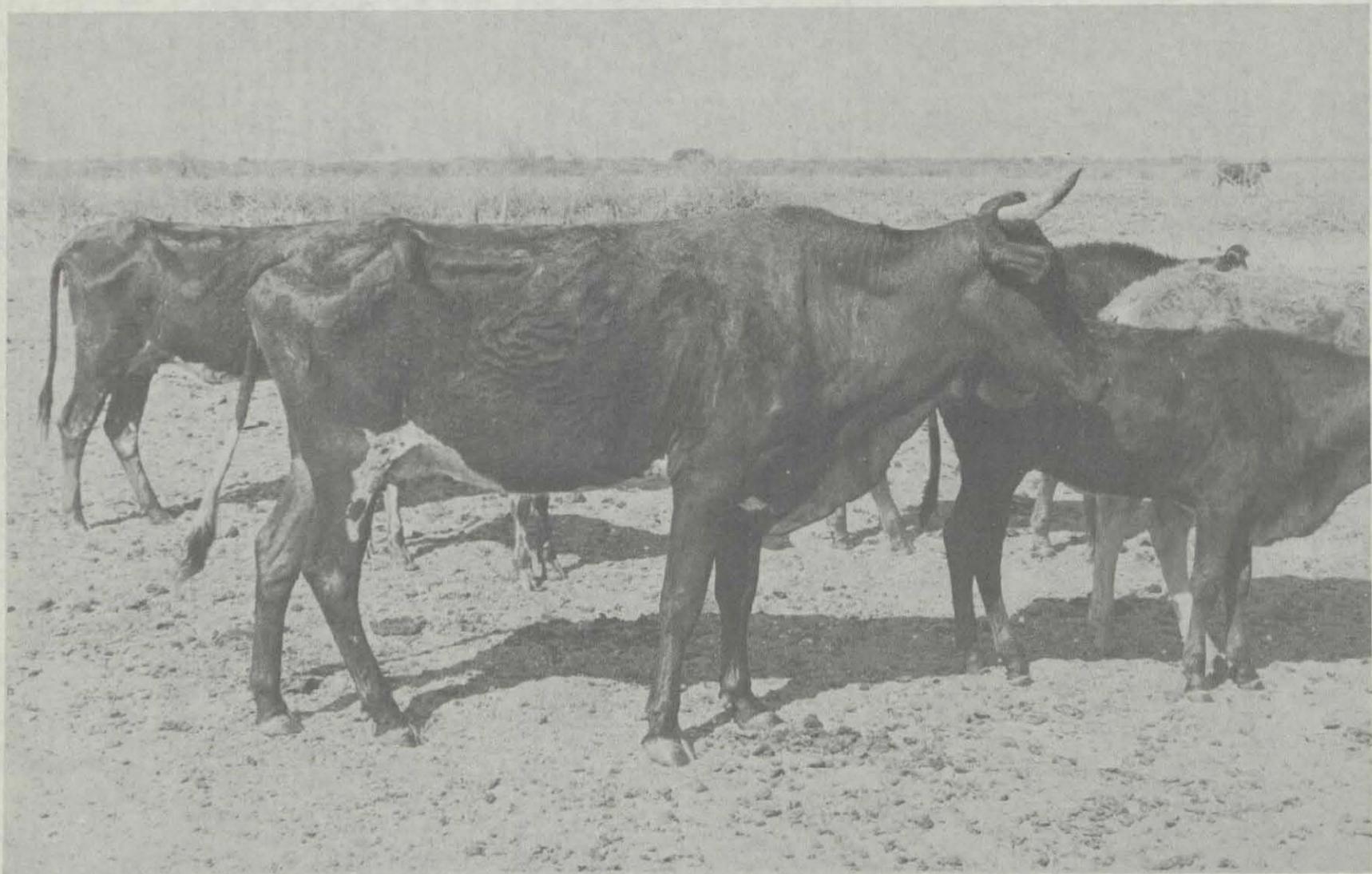


Figure 14 Score No. 2

23

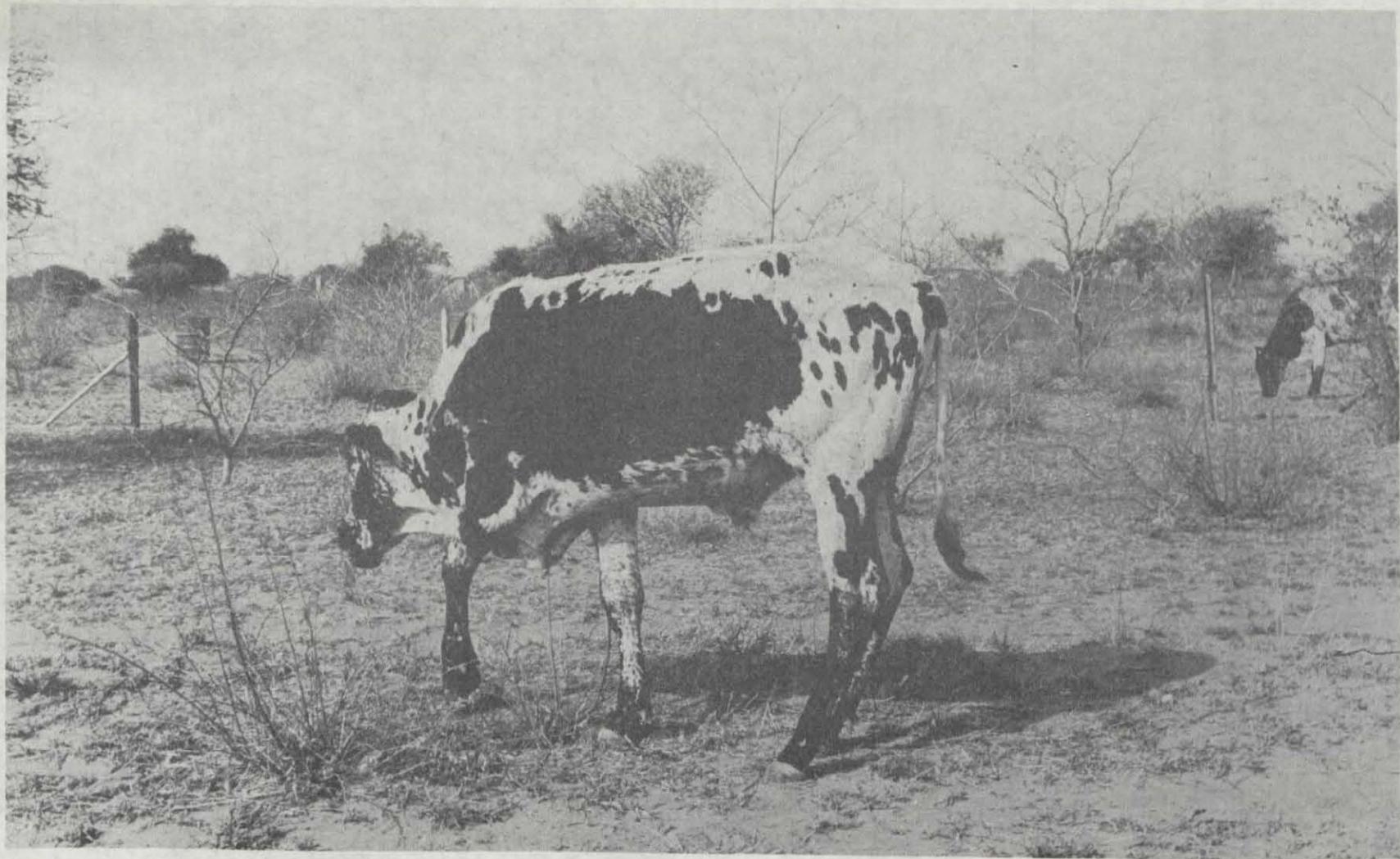


Figure 15 Score No. 2

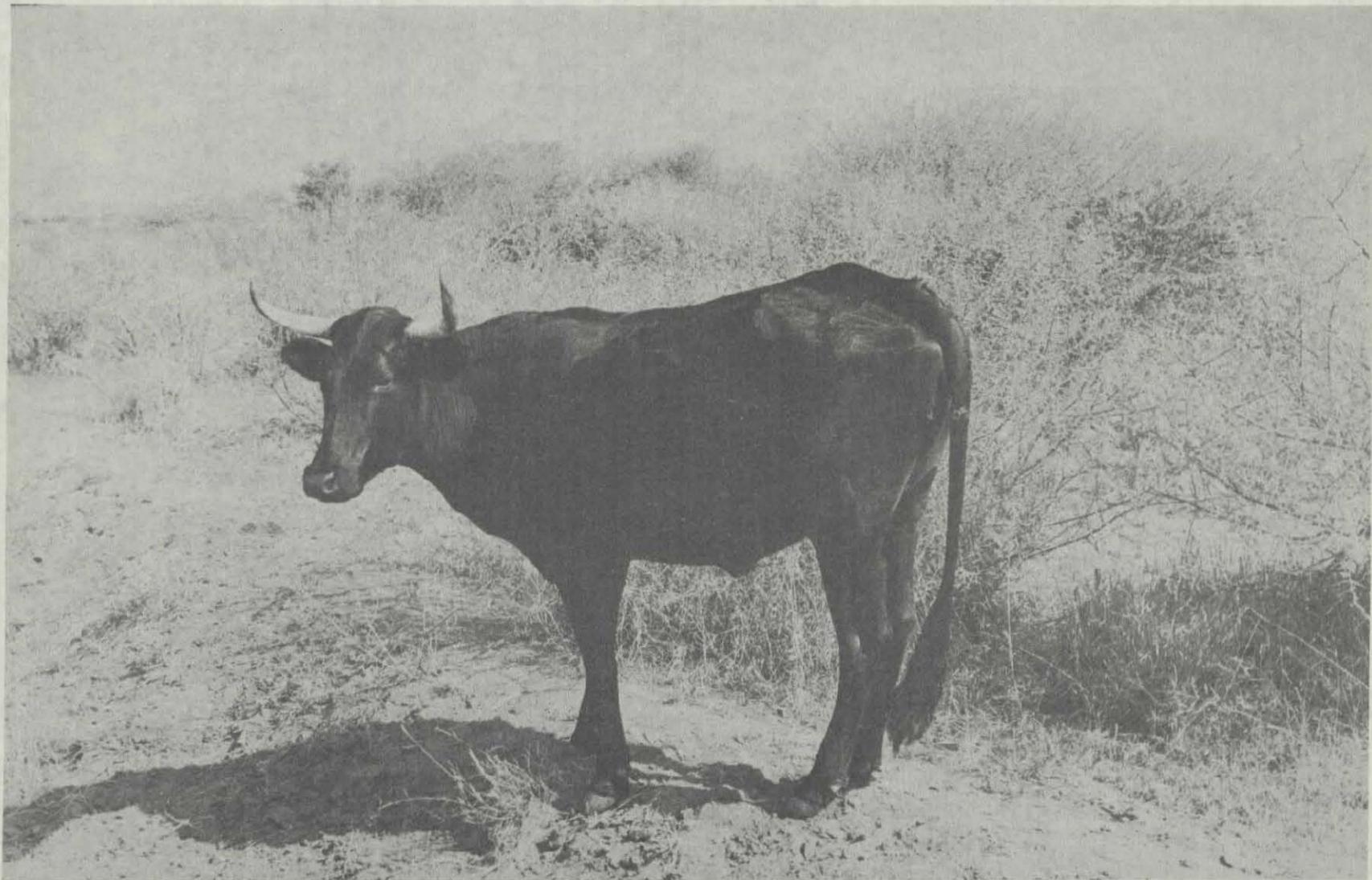


Figure 16 Score No. 2

25



Figure 17    Score No. 1



Figure 18    Score No. 1

121

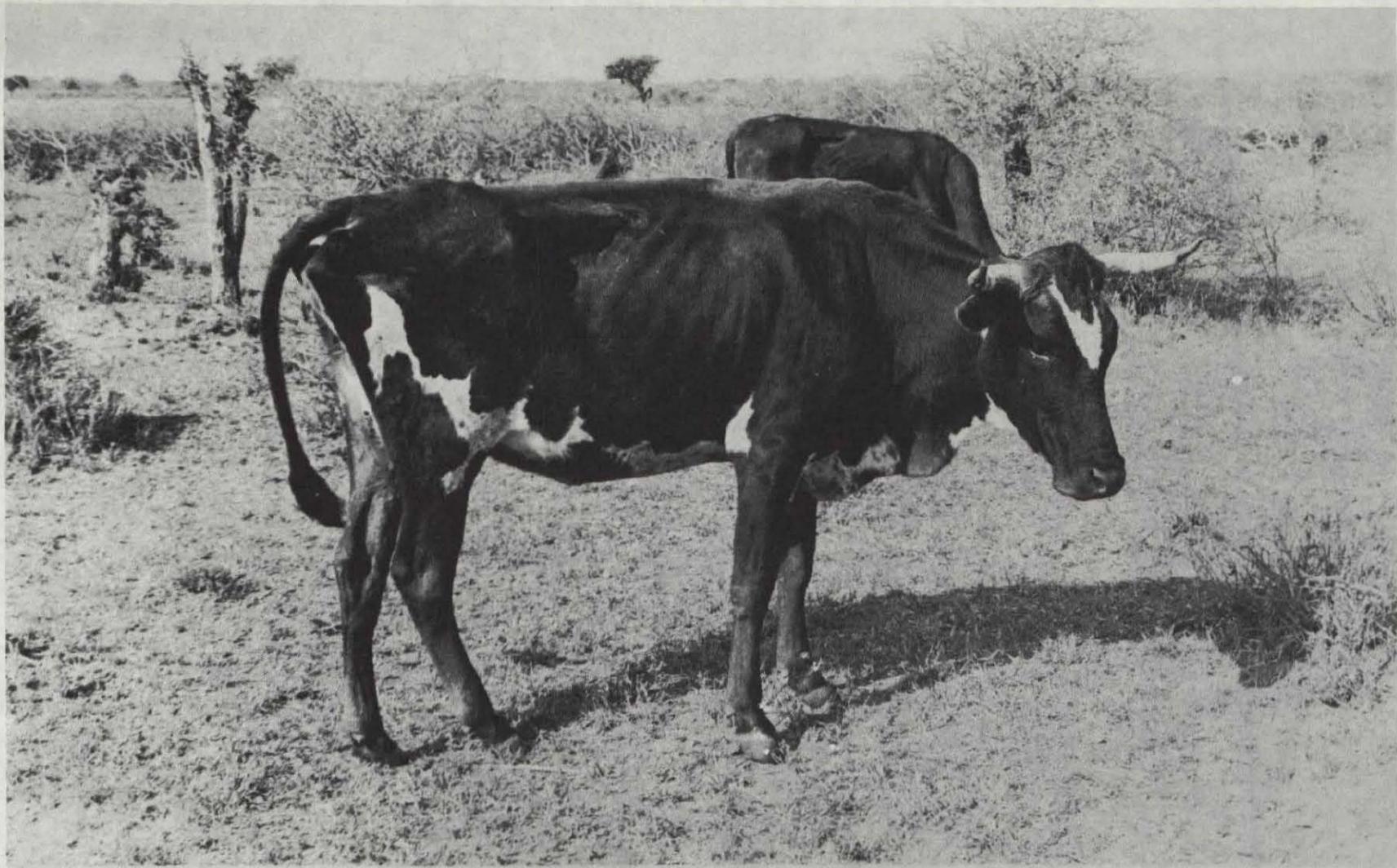


Figure 19 Score No. 1

28