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SELECTING
HEALTHY
Baby Calves



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SELECTING HEALTHY BABY CALVES

Hand rearing baby calves profitably requires certain basic elements, and the first of these elements is a healthy calf. Regardless of the genetic potential, a dead calf will not produce a profit.

Modern medicines have not solved all our health problems. Death losses among young calves is still one of the most expensive problems in the total cattle industry and is particularly significant in hand rearing calves. Other basic elements include the genetic potential of a calf to grow into a profitable beef or dairy animal, good nutrition, good husbandry and sound economics in buying, feeding and selling.

Ideally, calves should be purchased from nearby farms with a reputation for healthy animals and proper attention to management details such as providing early colostrum, good housing, using iodine on the navel right after birth and good sanitation measures. This is seldom possible if large numbers are purchased. The buyer of large groups often must depend on the reputation or integrity of a calf buyer. Again, a buyer who wishes to furnish the best possible product should secure calves only from dairymen who could be relied on to give the calves a proper start in life, but often he must buy wherever calves can be had to fill an order. The purchaser should never buy with his eyes closed, but should examine each animal individually. This is important as one sick calf can, in most calf rearing facilities, spread an infection throughout the whole group. Here are some points to consider before deciding on the buying procedure.

1. Very young calves are harder to rear than older ones; calves transported below a week of age have high death losses even if the haul is short. As a rule of thumb, the older the calf, the better are the chances for survival. A beginner would be wise to start with calves at least a month old. There are many complaints that agents misrepresent ages of calves. Some cut or burn off the umbilical cord to make the calves appear older. Insist on getting the age you pay for.

2. Females have a somewhat better survival rate than males.

3. Newborn calves that are exceptionally small or exceptionally large for the breed may have a poorer survival rate than good medium-sized calves. Some purchase very small calves for a few dollars less, but the economics of this may be unsound. It may be better to buy fewer calves with a higher survival rate. For example, one operator bought 100 small young calves for \$50 each and lost over 50 per cent of them. He could have started with 50 calves three months old for \$80 each, saved \$1000 on purchase, as well as feed and medicine for 2½ months, and ended up with the same number for market.

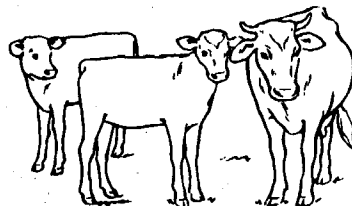
4. Calves should only be contracted on an "on approval" basis and should never be accepted at night or in a hurry. Each calf should be carefully examined individually. An inexperienced purchaser will do well to have someone experienced examine the calves for him, preferably a veterinarian. Any questionable animals should be rejected for health reasons or if they appear younger than contracted for.

Health certificates are issued for calves to cross a state line. This does not assure the calves are in good health when they arrive. They may have been incubating a disease which the stress of shipping aggravates. Mechanical troubles which delay feeding and arrival schedules may add to the problem, as may various other circumstances.

In any case, whether receiving a shipment, purchasing from a farm, a dealer, or an auction, a systematic examination of each calf should be the order of the day. Checkpoints to consider include:

1. General Appearance.

Eyeball the calves from a few feet back. Calves showing a dejected stance, incoordinate gait or signs



of weakness should go on the "reject list". Note the neck just below the angle of the jaw on either side of the trachea or feel this area for any signs of enlargement which may indicate an iodine deficiency (enlarged thyroid) and a weak calf. Exudate from eyes or nostrils or scabby, dirty or red nose suggests you are purchasing a problem. Calves with wet stained tails are scouring. However, absence of staining does not assure that a calf is free of scours. Some dehydrated calves with liquid diarrhea will be free of staining.

2. Respiration.

Any abnormality such as rapid or shallow breathing or increased effort on either inspiration or expiration should be viewed with suspicion. Abnormal breathing signals major trouble in baby calves. Respiration is best observed from a few feet away while the calves are quiet. Recheck respiration when calves are moved about and look also for incoordination, lameness, weakness, etc.

3. Temperature.

Temperature is not an infallible guide, but very high or very low temperatures are trouble indicators. The subnormal temperature is often the more serious sign. A calf with nose and mouth cold to the touch is a very poor risk. The normal rectal temperature should be between 101°F and 103°F.

4. Heart Rate.

This is best evaluated with a stethoscope. However, pressure over the heart or along the neck over the carotid artery will yield a pulse that can be counted. Taking a 15-second count and multiplying by four gives a good approximation of heart rate per minute. Normal rates should fall between 110 and 135 per minute during the first few days of life. From one to three weeks of age, 105 to 115 beats per minute is normal. Beyond this age the rate is slightly reduced in the young calf. Abnormally low rates may be more serious than slightly higher rates.

5. Dehydration. (Usually a result of diarrhea in young calves.)

The skin and eyes may tell more about scouring and dehydration than staining of the tail and adjacent areas. Dull, sunken eyes and a skin that does not immediately snap back into place when a fold of skin is picked up and released over the anterior shoulder area means the calf is dehydrated. The slower the skin reflex, the more serious the condition. However, if the calf is bright, strong, alert and passes on all other points, remember that a slight to moderate dehydration may result if the calf has been without liquid intake for over 24 hours.

6. Umbilical cord.

The cord should be dry on calves more than a day old. Wet cords suggest infection, particularly if the hair adjacent to the umbilical stump feels wet, sticky or greasy. Palpating the umbilical tract where it ascends the inner abdominal wall yields some information. It should regress rapidly and calves several days old with a thickened umbilical stump may have a developing infection. These infections often terminate fatally after prolonged illness, or may produce painful or swollen joints which are difficult to cure. The umbilical cord can tell something of the age as it normally drops off shortly before the calf is two weeks of age. However, some sellers are aware of this and will cut or burn off the dried stump to fool the prospective buyer. Also, an infected umbilicus can cause delay in shedding of the cord, so it is well to take a second look at calves over two weeks of age which have not shed their umbilical cord.

7. Vigor.

The vigor with which a young calf resists when handled tells something of his physical state. New-born calves, of course, are not as active as those several days old. Offering a finger and noting the vigor with which a calf nurses is a helpful index. Closely check or recheck weakly responding calves.

Practicing these procedures and using them with skill and judgment will pay dividends when purchasing young calves. The veterinarian with his ex-

perience, skill, training and equipment add refinement to these checkpoints. through use of his stethoscope he can evaluate meaningful heart and lung sounds also make further tests which have proved valuable. Some of these tests may have particular value where very valuable young calves are being purchased.

It has been reported that young calves with packed red cell volume above 55 per cent survive. This is an easily performed test with other criteria as a dehydration index. It has been reported that baby calves with packed red cell values below 6.0 per cent are more diseased than those with higher values.

Other blood indices of some prognostic value include total white cell plus differential count, evaluation of red cell morphology. Metabolism (variation in red cell size) or osmotic fragility (variation in red cell shape) are indications of disease proneness. One report has indicated that no calves survived with a pH below 7.0.

Chances for success in the calf-rearing business are greatly increased if the enterprise is limited to healthy calves. Careful selection of calves with thoughtful attention to details and hustling the first few weeks following purchase make the project much more successful and profitable.

Cooperative Extension Service, North Dakota State University, Department of Agriculture and Applied Science, an agency of Agriculture cooperating. A. H. Sorenson, Fargo, North Dakota. Distributed in furtherance of the work of the Department of Agriculture, U. S. Department of Congress of May 8 and June 30, 1914.