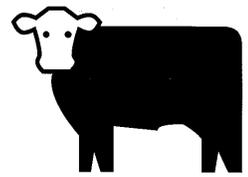


BABY DOLL NUTRITION NEWS

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Calf Ranch Series Number 1

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Ten Tips to More Profitable Calf Ranch Operation

1 Wean Calves Early - Early weaning pays big dividends two ways. First, performance is better when calves are weaned early. Secondly, the amount of milk replacer used per calf is reduced with early weaning. Milk replacer is several times more expensive per pound than starter feed. As soon as the calf can perform on starter feed, we need to replace expensive milk replacer with more economical starter feed. BABY DOLL® Smart Starter™ is very nutrient-dense, and includes premium ingredients such as whey, fish meal, distillers dried grains with solubles, and Poly-Plex™ organic trace minerals to promote health of the calf, early rumen development, and excellent performance. Calves should be weaned when they are: 1) at least 21 days old; 2) daily Starter intake is at least 1% of the calf's initial body weight; 3) cumulative total Starter intake is at least 9% of the calf's initial body weight; and 4) calf has gained at least 12% of its initial body weight. For a 90 lb. calf, this means it is 21 days old, currently consuming 0.9 lb. of BABY DOLL® Smart Starter™ per day, has consumed a total of 8.1 lb. of BABY DOLL® Smart Starter™ and the calf currently weighs at least 100.8 lb. What's this weaning strategy worth? Recent research at Kansas State University (J. Dairy Sci 80:2542) showed calves weaned according to these criteria (32 days) gained more weight and had \$2.50 lower cost than calves weaned when they were consuming 1.5% of initial body weight (43 days of age) and \$5.00 lower cost than calves weaned when consuming 2% of initial body weight (45 days of age). For bigger, healthier calves with lower cost, WEAN CALVES EARLY!

2 Feed Milk Replacer Properly - Unlike other milk replacers, BABY DOLL® Milk Replacer is designed to be fed at the rate of 28 oz/head/day (assuming calf birth weight of 90-110 lb.). This feeding rate is 75% more milk powder than most milk replacers on the market. Quite simply, calves fed our milk replacer at this rate economically outperform calves fed a standard 20% protein/20% fat milk replacer fed at 16 oz/head/day. Research conducted in 2004 showed that calves fed BABY DOLL® Milk Replacer were heavier (139.3 vs. 122.4

lb.) when weaned at 41 days, and heavier at 68 days of age (296.0 vs. 229.4 lb.) than calves fed a popular 20/20 milk replacer. Calves fed BABY DOLL® Milk Replacer were heavier, healthier, and experienced less than 1/2 of the death loss than with the 20/20 milk replacer. Is it the higher level of vitamins in BABY DOLL® Milk Replacer, the polysaccharide complex organic trace minerals, the blended fat sources, the feeding rate, the protein and fat levels, or a combination of all of these that improves performance of baby calves? We believe it is the combination of all of these factors. For best results, follow the milk replacer mixing and feeding recommendations carefully and feed it properly.

3 Prevent Sickness - Remember the old adage "an ounce of prevention is worth a pound of cure"? That same 16:1 payback applies when you prevent sickness. Clean and sanitize calf housing between groups. Check and treat navels on calves upon arrival. If calves are in a building, maintain proper ventilation (see below). Clean and sanitize feeding equipment between feedings to reduce disease organisms. Treat calves with amprolium during the second week of life for five days to prevent coccidial outbreak around weaning time. Vaccinate calves properly. All BABY DOLL products have high vitamin levels, Poly-Plex™ polysaccharide complex organic trace minerals, and high nutrient densities to enhance immune system function. Calves that become sick should be treated immediately to prevent more severe illness and disease spread.

4 Castrate and Dehorn Calves Early - Reduce stress by performing these two necessary tasks as soon as possible. Calves can be dehorned and castrated between 14 and 30 days of age depending on the calf. As soon as both testicles are accessible, knife castrate the calf. As soon as both horn buttons are accessible, dehorn. This reduces stress to the calf and reduce negative effects on performance.

5 Provide Calves With Fresh, Clean Water At All Times - Baby calves perform better when fresh, clean water is provided at all times. Incidence of scours was lower, starter feed intake was higher,

From the code of the old west:

It don't matter so much how long a ride you have, as how well you ride it.

average daily gain was higher, and cost of gain was lower for calves given plenty of fresh, clean water than calves consuming less water over a 3 year period in a major research facility (J. Dairy Sci. 67:2964). In one feeding study, calves deprived of water gained 38% less weight and consumed 31% less starter feed than calves given free access to water. Water should be about 50-60°F for best performance. Cattle on full feed will reduce feed intake if water is restricted. Reduced feed intake results in reduced animal performance. Have your water tested by a competent laboratory at least once per year. Use automatic waterers that are open (not tanks with floating balls), and are easy to clean. Waterers should be cleaned often with a brush to maintain high water quality. Water is the cheapest feed available, use it!

6 Improve Ventilation for Calves - Pathogenic organisms travel through the air on tiny water droplets. High humidity increases the incidence of respiratory disease in young calves. Improving the ventilation to reduce humidity and ammonia levels will pay dividends with reduced respiratory disease, lower mortality rates, and improvements in gain, feed conversion, and cost of gain. Chronic respiratory problems are common in calves raised in confinement buildings with power ventilation (veal buildings) and in calves raised in older bank barns during summer. Best performing calves have been raised in open facilities - small sheds and hutches open to the south with plenty of air movement. 1" x 4" boards run vertically with a gap of 1" between them allows air movement without drafts.

7 Keep Scoured Calves Hydrated - Over 50% of all calf deaths are due to dehydration caused by scours. Many of these calves could be saved with proper rehydration therapy, if started early. **At the first sign of scours begin electrolyte therapy with C.H.E.E.R.S.® electrolyte.** Calves that show obvious signs of dehydration (droopy ears, sunken eyes, reduced skin elasticity) have lost 6-9% of their body weight in fluid. Calves die from dehydration when fluid losses are between 12 and 15% of the body weight. Feeding 2 quarts of C.H.E.E.R.S.® once or twice per day in addition to milk replacer is required to maintain adequate hydration. Keep the calf hydrated and you have a better chance of keeping it alive.

8 Manage Feed Intake - No single task has a more profound impact on cattle performance than properly feeding the cattle. On one hand, cattle need to consume enough feed to grow quickly and efficiently. On the other hand, we need to keep feed fresh, minimize feed wastage, and prevent over-consumption. Calves fed from bunks need feed evenly distributed throughout the entire bunk,

preferably 2-3 times per day. Feed 35-40% of the daily ration in the morning and 60-65% in the afternoon and evening. Provide 10 inches of bunk space per head and keep bunks clean of fines, spoilage, manure, and other foreign material. Be consistent. Feed at the same time every day. Feed the same amount of feed every day and make changes in the ration or amount of feed gradually over several days. Watch the cattle to determine when to increase feed amount - not just the feed bunk! At feeding time, 25-35% of the calves should be waiting at the bunk when the feeder starts delivering feed. Less than 25% of the calves at the bunk is a sign you are feeding too much. When more than 50% of the calves are waiting, its time to make an increase in the amount of feed delivered. How much should you increase? Generally 1-3% additional feed is adequate. Make a small increase and then wait a few days to see how the cattle respond. Calves fed from self feeders need management, too. Keep feeders clean. Remove fines, manure, and other foreign material. Maintain enough cattle per feeder to maintain bunk space at 1-2 inches per head.

9 Raise Height of Feeders - Experience has shown us that calves weighing 160 - 450 lb. perform better when they eat out of higher feed bunks and stand on a 6-8" step while eating. Feed intake relative to body weight (3-3½ %) is extremely high during this growth phase. When calves stand on a small step such as a railroad tie, the elevation of the front of the body allows rumen gasses to escape while the calf is eating. This helps to reduce incidence of bloat and increase feed intake, thus improving calf performance.

10 Use the BABY DOLL Program - No other feed program has the BABY DOLL advantages! We start with consistent quality. We use fixed formulas - no least-cost formulation. All products are designed for optimum performance with high levels of critical nutrients and based on years of ongoing research and development. BABY DOLL products exclusively use *Poly-Plex™* organic trace minerals for zinc, copper, manganese and iron to enhance immune system function and animal performance. These are the most bioavailable forms of these minerals. You will never see inferior, low bioavailable forms (oxides or sulfates) of these nutrients in BABY DOLL feed products. We formulate with high levels of vitamins A, D₃ and E, and we use premium ingredients like distillers dried grains, whey, fish meal, and alfalfa meal to provide proper nutrients and improve digestibility and palatability. When you read our feed tags, you'll see each ingredient listed in the order of inclusion in the formula and you'll find that we guarantee the levels of vitamins and minerals well beyond the AAFCO regulations.