

DAIRY PIPELINE

**Summer is tough on calves too!** The summer season is commonly associated with problems of reduced intake and lower milk production in the lactating dairy cow, but it's also tough on pre-weaned calves. Pay attention to the following as you prepare your calves for the summer season.

*Calving environment.* Box stalls are frequently poorly ventilated and higher temperatures encourage more rapid bacterial growth. Consider calving outside in a shaded well drained pasture or larger well bedded and ventilated calving pens.

*Shade.* Shade cloths can be hung over the calf hutches. In addition, consider raising the rear of hutch with a cinder block to increase air flow through hutches. Position hutches with the openings towards the east or southeast to avoid the later afternoon rays of the sun.

*More frequent cleaning of feeding buckets and bottles.* Water intake is crucial to keeping the calf cool and hydrated. Water intake early in the calf's life encourages calf starter intake, which promotes early weaning. Poorly cleaned buckets will quickly turn green with algae growth which hinders water intake. In some cases the water bucket is also used to feed milk to calves. In these situations bacterial growth is rapid and may enhance onset of diarrhea in calves. Cleaning buckets daily or every other day with hot soapy water followed by a rinse with a dilute bleach solution retards bacterial and algae growth and encourages water intake.

*Fly control.* Flies are common vectors for Salmonella, E. coli and Pinkeye. Effective control begins with elimination of breeding locations near the calf which include accumulated bedding and tall grass and weeds. At Virginia Tech, calf hutches are placed on a bed of coarse gravel with sawdust or straw for bedding. Bedding is removed after each calf and each year in June and July the 6 to 12 inch layer of gravel is removed and replaced with fresh gravel. These factors seem simple and

involve a lot of common sense, but will frequently be as effective as the latest antibiotic, insect spray or feed additive in assuring healthy, well grown calves.

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**Too many pregnant cows?** Only once in the last 20 years has a dairy producer told me he had "Too many Pregnant cows" and that is another story I do not have time to get into for this article. Reproductive performance is a function of certain management policies and how well these policies are implemented in the day-to-day management of the herd. Excellent reproductive performance is essential to the long term success of a dairy operation. Throughout a cow's herd life, she should calve without difficulty, experience little or no postpartum reproductive disease, breed back within an optimal time period, carry each fetus to term, and have a live birth. The management team of a particular dairy must decide the specific methods to be used to meet this goal. Together the methods selected will become the reproductive management program for that particular dairy. These methods may include such approaches as chalking tail heads, activity tags, controlled hormone synchronization and timed AI, and I can go on and on. My point is "one-size-does-not-fit-all" when it comes to reproductive management in today's dairy industry. This week I visited six Virginia dairy farms where the herd size ranged from 110 to 750 milking cows and no two farms had the same reproductive management program and all were below the state average for days open and above the state average for 21-day pregnancy rate. A key to their success in my opinion was an excellent nutrition program and housing that

produced exceptional cow comfort. The free stalls ranged from “waterbeds” to sand with two having bedded packs but the key was they were all very well managed. Getting cows pregnant is a two-step process. First, cows need to be detected in heat so they can be inseminated at the appropriate time or a controlled synchronization program used with either re-synchronization or visual submission for subsequent AI. Then, insemination needs to result in conception. A general rule is that at any given time 50% of the herd should be confirmed pregnant. Approximately 8% of the herd should become pregnant each month to maintain a consistent herd size without the purchase of replacements. So, the average 150 cow milking herd requires 12 new pregnant cows monthly. If the average conception rate is 35% then 34 cows need to be inseminated to achieve 12 new pregnant cows monthly. During the period of summer heat stress when conception rates commonly drop to 20% to achieve 12 new pregnant cows 60 cows must be inseminated. Most dairy producers would like to have more pregnant cows. They would also like to have more cows pregnant soon after the end of the voluntary waiting period. However, reproductive performance is a result of several aspects of the dairy operation and there is no easy road to reproductive success or I would have retired long time ago.

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**Foot and leg problems are a major concern for dairymen.** Laminitis leads to poor performance and substantial economic losses. The average cost per case of lameness is \$346 which includes treatment costs, reduction in milk yield, lower reproductive performance, increased involuntary cull rates, discarded milk, and the additional labor cost to manage those cows. Nutrition and feeding, housing and environment, other health issues, genetics, and management can all predispose a cow to feet and leg problems. With 90% of all foot and leg problems occurring in the foot,

regular hoof trimming is a key factor in the reduction of lameness. Hooves should be evaluated and trimmed to improve comfort and performance. *Proper nutrition is also a key.* Most laminitis occurs in the first 100 days of lactation. Sore feet can reduce dry matter intake which will subsequently reduce milk production and can lead to other disorders such as ketosis, displaced abomasums, and other metabolic disorders. Rations should be balanced to maintain adequate NDF, ADF, and effective fiber levels. The inclusion of dry hay, an increased length of cut, avoiding slug feeding, and the use of buffers will help reduce the effects of high carbohydrate rations. Pay close attention to dry matter levels in forages and modify rations accordingly. Providing adequate bunk space (at least two feet per cow), a comfortable environment, and a minimal amount of time standing in the holding pen will also reduce the risks of laminitis.

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### **\*\* Upcoming Activities\*\***

Waste Management System	July 15
Demonstration and Dairy Tour, <i>Virginia Tech Dairy Center</i>	
State 4-H/FFA Dairy Youth Field Day	August 5
<i>Harrisonburg</i>	

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