A barn full of healthy, high-producing cows is the goal of all dairy farmers and is a product of good management, proper nutrition and attention to details, especially during the transition period. The transition period is the three weeks before to three weeks after calving.

Fresh cows have significant potential for income loss on dairy operations because of their fragile post-fresh metabolism and immune system. When problems occur with transition cows, milk production of not only the current, but also future lactations, may be affected. Cows that transition with no problems will be the most profitable throughout their lactation.

The steady stream of freshening cows on modern, large dairy farms has created the need for specialized maternity and fresh-cow personnel. Fresh-cow pen personnel should be trained to accurately detect, treat and record the most common conditions that occur in the fresh-cow pen.

Meetings with fresh-pen personnel and the veterinarian, at least monthly, ensures training and fresh-cow protocols are reviewed and updated, hopefully resulting in prompt detection of any new post-fresh conditions.

**FRESH COW OBSERVATION**

Once dairies implement a fresh-cow protocol, they rarely abandon it because the benefits are quickly realized. Among these are:

- Protection of cows as they enter the most productive stage of their lactation
- Early detection and treatment of disease
- Prevention of future reproductive problems
- Reduced culling and death loss during early lactation

These benefits can only be accomplished if, among others, there is proper attention to bunk space, pen moves and screening of cows needing attention and treatment.

The veterinarian and nutritionist have integral roles to play in the management of fresh cows. The veterinarian must develop protocols for diagnosing and treating the most common conditions that occur during the transition period and train the personnel to properly apply these protocols. The role of the nutritionist is mainly to maximize dry matter intake by keeping a close eye on rations used during this period.

Due to their weakened condition, fresh cows should be kept in a separate pen. Because there will be both heifers and mature cows in this pen, and considering that first-calf heifers do not compete well with mature cows for bunk space, this pen should never be overcrowded. A good guideline is to keep the pen stocked at less than or equal to 85 percent capacity. In other words, there should be at least 15 percent more lockups than fresh cows at a dairy’s peak calving time.

**NUTRITION**

Fresh cows should be eating properly and producing well as a sign of good health. Ideally they should be fed rations specifically designed for fresh cows.

When a cow begins to feel sick, the first thing she does is reduce feed consumption. This drop in dry matter intake puts the cow at risk for conditions such as displaced abomasum, fat mobilization and subsequent ketosis, in
addition to mastitis and metritis. Less rumination occurs if feed intake is reduced. Cow activity monitoring systems with a rumination function have proven to be effective at detecting this decrease an entire day before it becomes obvious by visual observation.

GENERAL HEALTH EVALUATION
The general health parameters below may indicate a disease state. Careful, proactive observation for these symptoms will quickly identify diseased fresh cows to potentially reduce the severity of the disease and quicken recovery.

Appetite - Put out feed for the fresh cows while they are being milked and give them time to start eating before working that pen. Compare individual cow consumption with their neighbors. Any cow found not eating should get a complete physical exam.

Dehydration - Cows with mastitis, metritis, enteritis or severe pneumonia may be dehydrated and need fluids added to their treatment plan. Dehydration is diagnosed when the skin on the neck is pinched, pulled and twisted, and takes more than five seconds to return to normal condition.

Diarrhea - Cows with diarrhea should get a complete exam because it may be the result of a metabolic disorder and a cause of dehydration.

Ears - A good sign of overall health of a cow is the carriage and temperature of her ears. Observe all cows’ ears and touch those that appear droopy. Compare temperature with that of their neighbors. Droopy ears may indicate depression due to illness. Cold ears may indicate hypocalcemia.

Eyes - Watch for sunken, dull, dry, runny or crusty eyes. Abnormalities in the eyes may be an indication of dehydration, response to pain and/or infection.

While observing the fresh-cow pen, one person walks in front of the cows.

OBSERVATIONS
The challenge for a good fresh-cow management program is to find workers with experience, know-how and motivation. Once you find the right people, giving them the time necessary to monitor fresh cows each day is equally important. This is where protocols designed by the veterinarian pay off.

There should be at least two, well-trained people who make up the fresh-cow pen team, and there must be constant communication between them. One person walks in front of the cows and the other walks behind the cows. Fresh cows should be monitored for a minimum of ten days after calving.

The person walking behind the cows should look for:

- Cows that are not eating, or eating significantly less than the others
- Diarrhea
- Abnormal vaginal discharge
- Abnormal abdomen - either too small or distended
- Respiration rate and labored respiration
- Tail carriage
- Udder fill

The person walking in front of the cows is the record keeper, but they should also look for:

- Attitude and disposition
- Ear carriage and temperature
- Abnormalities in eyes and excessive or abnormal nasal discharge
- Repeated coughing

The person walking behind the cows should look for:

- Appetite
- Udder fill
- Tail carriage
- Udder fill

The list below shows the necessary equipment for a detailed examination of fresh cows. This list will vary by farm depending on their established protocols.

THE EQUIPMENT
The list below shows the necessary equipment for a detailed examination of fresh cows. This list will vary by farm depending on their established protocols.

- Thermometer
- Syringes and needles
- Stethoscope
- Specimen cups for milk, urine and/or feces
- Pharmaceuticals
- Permanent marker to identify cups and test tubes
- Arm-length gloves and obstetrical lube
- Cattle markers
- Mastitis test kit
- Drench system
- Ketone test strips (for milk and urine)
- Milking gloves
- Nose leads with rope
- Specimen cups for milk, urine and/or feces
- Syringes and needles
- Ketone test strips
- Thoroscope
DISEASES

The conditions most commonly found in the fresh-cow pen and for which the personnel should be properly trained to diagnose and treat, include:

**Displaced abomasum** - Cows that are not eating, are producing low volumes of milk and have an abdomen that is not touching the last rib, may have a displaced abomasum. This condition can be diagnosed by listening with a stethoscope to the abdominal sounds. A sound resembling a “ping” will be heard upon tapping the abdominal wall.

**Ketosis** - Ketosis or acetonaemia occurs mostly in high producing cows with low dry matter intake and a loss of body condition, which results from the need to mobilize body fat and use it as an energy source.

**Metritis** - This occurs most commonly within the first 10 days post-calving. Metritis is characterized by an enlarged uterus and a watery red-brown fluid to a viscous cream to yellow-colored purulent uterine discharge, which often has a fetid odor. The cow most likely will also have a fever.

**Milk fever** - This is characterized by reduced levels of calcium in the blood. It is most common during the first few days of lactation, when demand for calcium for milk production exceeds the body's ability to mobilize calcium reserves. Although there are various levels of severity, common symptoms include muscle weakness, reduced dry matter intake, decreased body temperature, and/or a rapid heart rate.

**Pneumonia** - Diagnosed when cows have two of the following conditions - fever, abnormal nasal discharge, cough and/or short, rapid breathing.

TAKE HOME MESSAGE

Fresh cow management is a way to improve the wellbeing of all cows. Separating fresh cows from other groups is a “must” and ideally, separation of cows and heifers in milking pens is also recommended.

Your veterinarian should develop observation, recording and treatment protocols for these cows. Monitoring and recording daily observations to identify diseased cows and precisely following appropriate treatment protocols (i.e., drug dose and treatment duration) offer the best approach to detecting and resolving problems in a timely manner to avoid excessive production loss.