

Managing the Automatic Calf Feeder System

The [DeLaval Calf College](#) free webinar series recently concluded with a final presentation by Dr. Robert James on [managing the autofeeder system](#). He noted that young animals need **good quality nutrition**, a **consistent diet** and a **clean environment**. Keys to doing this successfully with an autofeeder system include:

- Training calves
- Developing feeding plans
- Keeping the system clean
- Harnessing essential “people” skills
- Using data to manage calves

Feeding a high-quality liquid diet

Producers using autofeeders can feed their calves waste milk, whole milk or milk replacer. Each has its own pros and cons.

- Waste milk: a low cost option with variable supply and nutrient content. A high volume may indicate herd health issues. Can be challenging as it needs to be pasteurized which requires an additional investment in equipment, labor and management.
- Whole milk: contains high nutrient content making it very digestible but expensive. Can be challenging as it needs to be pasteurized.
- Milk replacer: cost is lower and so is risk of disease transfer. It can be mixed accurately and precisely by the autofeeder – a simpler system.

Using feeding plans to deliver a consistent diet

Preconditioning of calves occurs from birth until they are placed in group housing. After feeding colostrum, producers should feed calves the same diet as what they will receive from the autofeeder. According to Dr. James, “When the calf has a strong appetite and is nursing aggressively, then it’s advisable to put them on the autofeeder.” He notes this typically happens between four and seven days of life.

Once they’ve been moved into group housing, the autofeeder will allow them to eat multiple, smaller meals throughout the day, making it easier to consume larger daily volumes with less digestive stress.

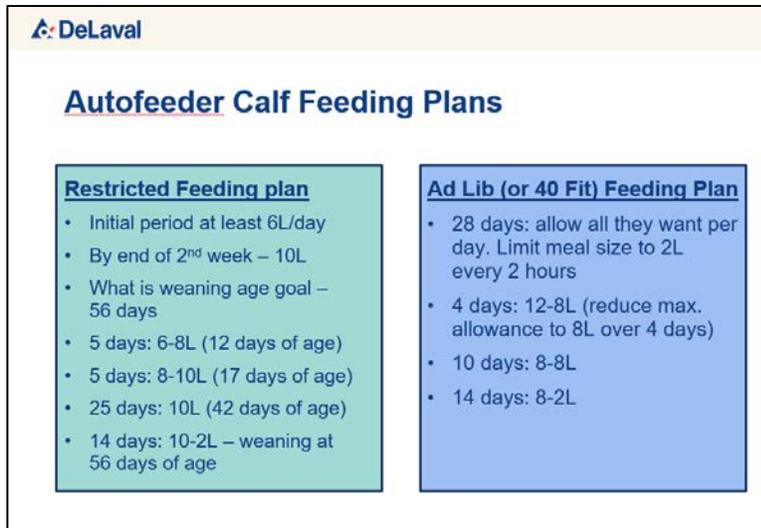
Upon entering the autofeeder stall, each calf is identified with an RFID tag so the system knows what stage of the feeding plan they are on. Consistent mixing, temperature controls, the ability to include additives in a meal, and sanitation features make autofeeders a powerful calf feeding tool if managed properly.

In developing a feeding plan, producers must decide how much to feed their calves depending on their age. Young calves may receive meals of 1 to 1.5 L while older calves get meals of 2 to 3.5 L. “If the meal size is too small, the calf will go back to the feeder too often,” said Dr. James. “This means we have high stall utilization.”

If using milk replacer, Dr. James recommended mixing 150 g of milk powder with 1,000 ml of water – a 13% solids-to-water mixture.

Two types of feeding plans: restricted and ad lib

A restricted feeding plan defines the maximum amount of milk a calf is allowed to consume each day. In an ad lib feeding plan, a calf can drink as much as she likes for the first 28 days “If you don’t want to feed a minimum of 8 L a day of milk or milk replacer, this system is probably not going to work for you,” Dr. James warned. “Those calves will go back to the feeder too often and become frustrated.”



The infographic is titled "Autofeeder Calf Feeding Plans" and is presented in a light blue box with the DeLaval logo at the top left. It contains two columns of information:

- Restricted Feeding plan** (in a light green box):
 - Initial period at least 6L/day
 - By end of 2nd week – 10L
 - What is weaning age goal – 56 days
 - 5 days: 6-8L (12 days of age)
 - 5 days: 8-10L (17 days of age)
 - 25 days: 10L (42 days of age)
 - 14 days: 10-2L – weaning at 56 days of age
- Ad Lib (or 40 Fit) Feeding Plan** (in a light blue box):
 - 28 days: allow all they want per day. Limit meal size to 2L every 2 hours
 - 4 days: 12-8L (reduce max. allowance to 8L over 4 days)
 - 10 days: 8-8L
 - 14 days: 8-2L

A German study which compared the effects of ad lib diets versus restricted feeding plans of 6L per day found that calves which drink as much as they liked in the first 28 days gained more than 2 pounds a day. Their counterparts only gained less than a pound a day. When making a follow-up of those calves after they became first-lactation cows, the study found that those cows also produced 15% more milk.

“If we feed calves better in the first 30-45 days, this usually translates

into better milk production,” said Dr. James. “We may be turning on some genes; we’re doing something for the development of that calf that can pay off for her later on in life.

In addition, the [DeLaval Calf Feeder CF1000S](#) allows calves to carryover feed that was not consumed the previous day. It also automatically adjusts the feeding plan based on winter feeding conditions where nutrient requirements are higher. Both of these features helps ensure the calf is getting all of the nutrition according to her plan.

Managing for success

To achieve the goals set out for the autofeeder system, Dr. James advised producers to consider the following management tasks:

- Backgrounding calves: colostrum management must be tops, and be sure to feed the same diet in the bottle compared to what’s fed in the autofeeder. Transfer a calf to the group pen when she has strong sucking behavior.
- Training calves: move calves to the group pen after morning feeding. They will learn from each other, so don’t over-train or they’ll think you need to be there for them to eat.
- Walk the pens each morning for visual health scoring: look for cough, nasal discharge, eye scores, ear scores and fecal scores (a good guide is the Calf Health Scoring chart from the University of Wisconsin College of Veterinary Medicine).
- Review the data for early disease detection: reductions in drinking speed, drops in daily consumption, incomplete visits, reduced activity and drinking intensity are all things to look at.

[DeLaval Calf Cloud](#) lets producers review this data remotely via a computer, tablet or smart phone and make adjustments to feeding plans.

- Treat sick calves: for example, give meals with electrolytes at every other visit to the feeder
- Sanitation: establish standard operating procedures to keep the machine operating optimally and calves healthy. This includes at least three mixer or heat exchanger cleanings a day and one circuit cleaning using recommended detergents and sanitizers. Scrubbing external surfaces of the feeder and feeding stall is also recommended.

This webinar – and all of the webinars from the [Calf College](#) series – is available for playback on DeLaval's website.