

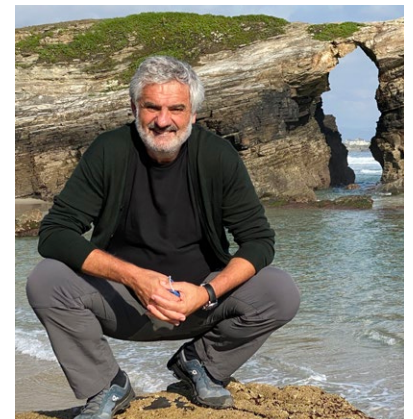
RAISING DAIRY HEIFERS AT SPAIN'S RANCHO LAS NIEVES

By Bonnie Cooper

One of the most modern, intensely managed and successful contract dairy heifer raising facilities in the world today is Rancho Las Nieves (RLN) in Spain. Their attention to detail, and emphasis on the health, welfare and comfort of the animals under their care, has made RLN a trusted provider in the rearing of replacement heifers for their clients.

Rancho Las Nieves has six owners, four brothers in the Ahedo family and two friends, both of whom work at RLN. Pepe Ahedo, who designed and led the creation of RLN, manages the ranch along with his partner Vicente Garcia. Well-known and respected in the dairy cattle industry, the Ahedo family is involved in various dairy enterprises. They currently milk 550 cows on 3X milking at their family farm, La Travesia, are the semen distributors in Spain and Italy for the Canadian based A.I. company Semex, and one brother runs a milking machine company called Moo System. Another generation of the Ahedo family is now arriving in their companies, with four young people already involved.

In the late 1990s, the Ahedos were running two farms in Spain and decided to merge them into one facility. In 2002, they visited several heifer rearing centres in the United States. "We learned you need 'size' to optimize the growth and the cost of the heifers," says Pepe Ahedo. "We went to the USA with the idea of making a facility for 1000 heifers. We came back thinking at least 4000 heifers in the new facility. Then we had a difficult decision to make. Do we make the facility just for us? Or, do we open the door to other farmers and make it a bigger project? Fortunately, we decided to make it a bigger project."



Pepe Ahedo

Construction on RLN started in 2002. The first animals entered in December 2003. Currently, this unique heifer rearing centre is raising 8850 heifers from 110 different farms in Europe. "We are completely full," says Ahedo. "We have a waiting list of farms wanting to come into RLN."

Rancho Las Nieves is located on a hill on 45 hectares of land at Zaragoza in central Spain. The climate is "continental", meaning cold winters and hot summers. It is a dry, windy area. The farm purchases all of its feed and feeds over 150 tons daily. There are 40 employees, eight of these part-time. RLN utilizes more than 1600 Standard Operating Procedures (SOP) to run the centre. Heifers are raised initially in strawed bedded hutches and then move through a series of outdoor corrals or pens. Detailed data and information (health, feeding, reproduction, treatments, vaccines, etc.) is collected and recorded on each animal every day. "While every month is important, all of our working lists are by 'day' old, never 'month' old," says Ahedo. "We control all our feed logistics (contracts, stock, loads, unloads, dry matter intake, nutrients, costs, etc.) with a state-of-the-art system (hardware and software) called algoMilk."



algoMilk works at an individual animal level and uses group dry matter intake along with performance of every animal and weather conditions to estimate individual feed intake. Thus, we know the exact amount of every nutrient that is consumed by every heifer throughout her life. Once nutrient intake is predicted, algoMilk also predicts animal performance and, using different algorithms of artificial intelligence, optimizes nutrient to supply to meet the objectives using the least number of resources."

There is a strict biosecurity program at RLN. The centre is surrounded by a fence. No visitors are allowed and no external cars or trucks can enter the animal facilities. All transport trucks must drive through a disinfection pool.

Calves enter RLN at about 14 days old, with a new group of animals being collected and transported there every two weeks. Upon arrival, all calves are individually checked by a veterinarian for weight, height, temperature, general health, etc. "We put our ID and a chip in for the weighing station. We start the vaccine program and treat any sick calves (around 15% need treatment)," says Ahedo. A report on each calf is then sent to their owner. Calves go into individual hutches for about 30 days. Here they receive 900 grams of milk replacer, water free-choice and a calf starter. The milk is fed in 3 litre bottles twice a day.

At 45 days of age, the calves move into a super hutch for eight calves. They stay here for nine weeks. Calves are weaned starting at 70

days. The first week in the super hutch the calf gets 900 grams of milk replacer fed twice a day in a stainless-steel water trough. The next three weeks they receive 450 grams once a day. The calves continue to be fed starter that first week and then transition to a dry TMR of chopped straw and grains. From here, the calves move to a group of 25-30 heifers in a corral for eight weeks. Then, they move to another corral with 75-90 heifers for nine weeks, and after that, to a group with 150-180 and so on. Once in the corrals, heifers are fed twice a day with two mixer wagons. The main forage is chopped straw and dehydrated alfalfa. Besides the different grains, by-products like brewers' grain and fruit waste are also fed. Feed is available free-choice and they look for a clean manger after 20 hours. Early every morning,



Vicente Garcia checks all the pens to adjust (up or down) the amount fed to the heifers.

"RLN has 131 different pens, organized in 13 different zones," says Ahedo. "We use 14 different feed rations after weaning, adjusting rations for Crude Protein (CP), Metabolizable Energy (ME), Acid-Detergent Fiber (ADF) and Neutral Detergent Fiber (NDF). Rations change all the time depending on how the animals are growing, the time of year, availability of feeds, feed markets and prices." As Ahedo points out, "To grow a heifer properly, you need to socialize her properly and feed her many different diets to get maximum growth, while avoiding fattening and optimizing feed cost, which is the major cost in growing a heifer. Dry Matter Intake (DMI) is very important at every age. The key to any feeding program is knowing the grams of CP and total Megacalories (Mcal) that each animal is eating every day and then adjusting the DMI accordingly."

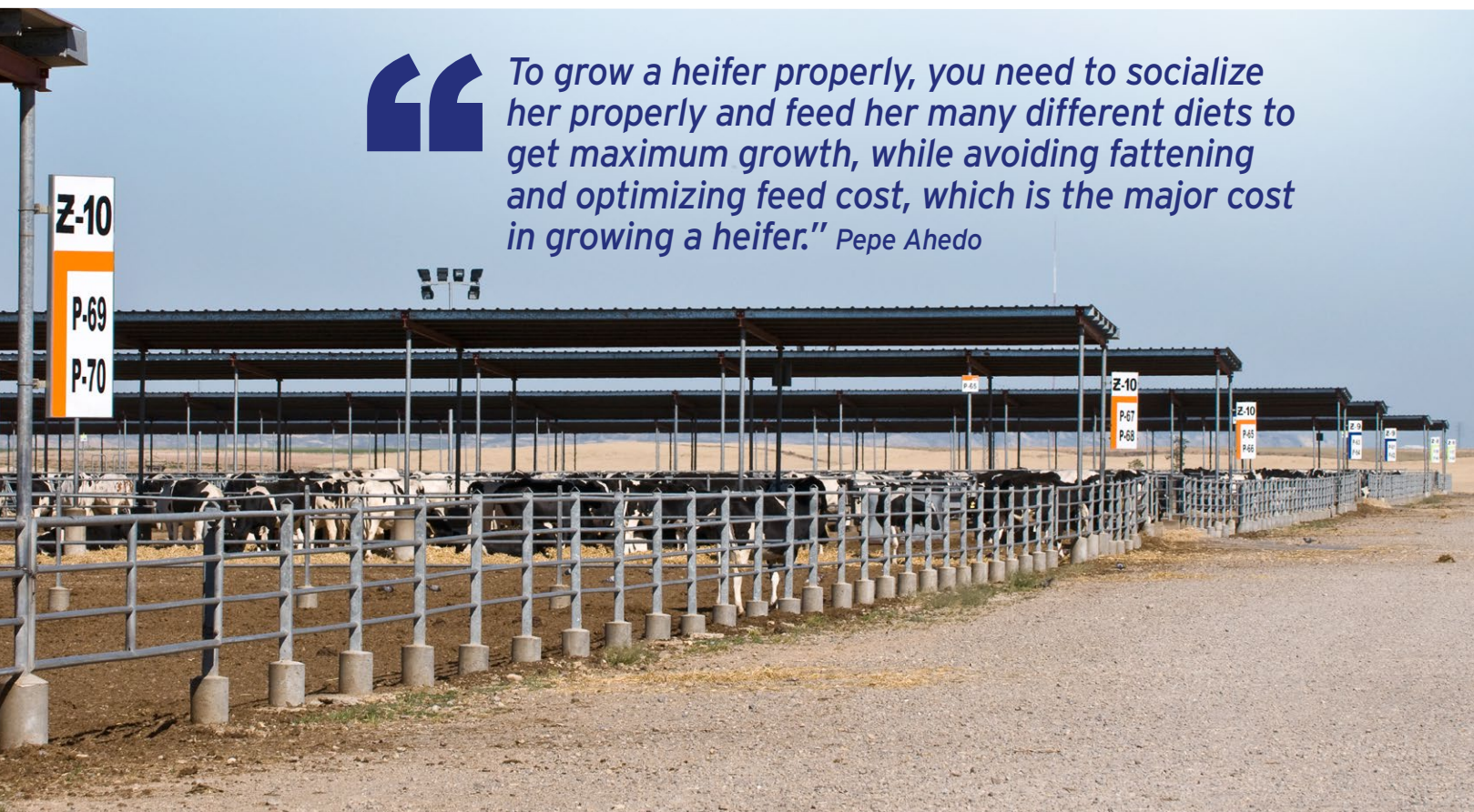
Heifers at RLN are grouped by both age and weight until they reach the A.I. pens (breeding age). After that, they are moved by reproductive status or Days Carrying Calf (DCC). Animals are weighed at least eight times at RLN. "We have a weighing station," says Ahedo. "Groups of animals enter and go through the scale. Automated identification, and our own software program, allow us to

select and divide animals into three different lots depending on the constraints we have for any age." The Average Daily Gain (ADG) in weight per animal at KLN is 890 grams, with animals staying here about 660 days in total. "We weigh animals every time they change zones (different group size and ration). If an animal has not met the minimum weight requirement, we have set to exit that zone, she remains for another two weeks with the younger heifers. We call this a 'delay'," explains Ahedo.

Heifers are bred at an average age of 400 days old (13.1 months) and a weight of 390 kilos. Some heifers go into A.I. pens 15 days sooner if their weight is over 400 kilos but never before 385 days old. The average age at pregnancy is 437 days (14.4 months). RLC uses the "tail chalking" method to identify the heifers that need to be bred. They have a heat detection rate of 80% with 50% Pregnancy Rate. The heifer's owner decides what type of semen will be used to inseminate their animal. The owner is given different options with different prices for conventional or sexed semen. RLN charges clients "by the pregnancy". They do not charge for the semen. "We work with the best bulls from Semex and another A.I. organization in our program," remarks Ahedo. "We try to use the best bulls because we know all of the resulting calves will be coming back here. We want the best genetics to work with and to guarantee a good performance for our customers."

Pregnant heifers return to their owner's farm at around 22 months of age and 220 DCC. On average, they weigh 620 kilos and measure 154 cm high at the rump. They calve at about 23.5 months old (715 days). "The heifers are never fat," says Ahedo. This is a result of RLN's meticulous attention to the various feed rations given at every stage of the heifer's life ensuring proper growth and Body Condition Score (BCS). RLN's mortality rate is below 1.4% and their total cull rate is below 5%.

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As a commercial business, RLN signs a “contract” with each of its farmer clients outlining their commitment and the cost of their services. They currently charge a daily fee per animal of 2,726 Euros per day (\$3.20 US/\$4.10 CDN). Included in that fee is transportation, feed, vaccines, treatments, etc. “RLN charges for their services, but the heifers always belong to the customers. If an animal dies, or should be sent to slaughter for any reason, all of the expenses for that animal are returned to the owner. Customers only pay for the heifers who come back home,” stresses Ahedo. In the future, RLN plans to collect milking data from the animals who have been raised here so they can better assess their own program and ensure it is maximizing the animal’s performance as an adult.

For the Ahedo family and its partners, RLN is more than a “system”, it is their “passion”. At the entrance to the centre hang individual metal plaques listing the name of every client with a heifer in the facility. In the middle of those names is a sign which reads: “At RLN we care for the present to prepare for the future. Thank you for your trust.” In the beginning, building their clients’ “trust” was crucial for RLN. As Pepe Ahedo

says, “If you send your heifers, ‘your future’, to a heifer rearing centre and they do not develop and perform properly it can destroy your business. For farmers to assume this risk, they must know and trust the people who own the operation.” Today, after 18 years in the business, Rancho Las Nieves’ results and reputation speak for themselves with more than 70,000 heifers having gone through the facility since it opened.

Even though Spain has experienced some of the lowest milk prices in the European Union in the last five years, RLN remains completely full. Why? “Because our customers know they cannot develop heifers with this quality and for the price they are paying,” replies Ahedo. “Many of our customers sell heifers and now with sexed semen they need to control their number of Holstein breedings at home to avoid having too many heifers. The best farmers are using beef semen on 70% of

their cows. Our customers say they get almost one lactation more from their animals than they did before using RLN. Those results, along with sexed semen, give dairy producers a greater selection in dams. And for those using ‘genomics’, the genetic progress will be even higher because they can more aggressively select the dams.”

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All of RLN’s customers are from Spain. While they have had requests from farmers in other countries to raise their heifers, and even calls from some big beef companies, RLN is at capacity and it is impossible for them to expand. Instead, they plan to grow their business by offering “consulting services” to other farms and companies looking for help in designing heifer facilities, training people, implementing SOPs, utilizing computer software programs, etc. As Ahedo says, “We believe a heifer raising centre is the most efficient and sustainable system for the future.”

Heifer rearing facilities like RLN are not as common in Europe as the United States because milk production in Europe is more “in the hands of small farmers”. In the United States, where milk is produced mainly on large farms with hundreds or thousands of cows, there is more specialization, with many farms just concentrating on milking cows while heifer centres focus on raising heifers for those large dairies.

Dairy farming today is more challenging than ever. As costs rise and margins narrow, dairy producers must continually seek ways to be more efficient and profitable. The cost of raising replacement heifers is the second or third largest expense on a dairy farm. “We have a great opportunity to make improvements in this area,” states Ahedo. “A heifer’s life totally impacts her adult performance. How we raise our heifers impacts gene expression, lifetime production, longevity and health.”

As Pepe Ahedo says in closing, “We can change the dairy business by changing heifer performance. The publications say 17% of the heifers who enter production never reach their second lactation. In any other business, like the phone or car business, they guarantee 3-5 years of performance from their product. Dairy farms can no longer support cull rates of 32-38% like before. We must work with 30% or less. All cows should be profitable on a farm. We can get those results only with high quality, consistent heifers and we will get them only with a unique and specific heifer rearing system.”

QUICK FACTS

- Rancho Las Nieves (RLN), a contract dairy heifer rearing farm at Zaragoza, Spain, is owned by four Ahedo brothers and two friends.
- Currently houses and raises 8850 heifers from 110 different farms in Europe.
- Heifers arrive at 14 days old and return home to their owner at approximately 22 months of age and 220 days pregnant.
- Heifers are raised in hutches and then corrals with different feed rations fed at each stage of their life.
- Clients charged a daily fee per animal by RLN, but heifers always belong to the client.
- More than 70,000 heifers have gone through RLN since its inception in 2003.

