

# Two decades of research columns culminate in dairy calf, heifer book

**S**INCE I first began writing this column in September 2001, I have periodically received some feedback. It has been positive, maybe because people do not like to offer critical or negative comments.

In that respect, I subscribe to the philosophy of J.T. “Tom” Reid, who was my major professor at Cornell University, that scientists should not only expect critique, but they should also actively seek it. Few like to be critiqued, so that is difficult to accept, yet it is the approach with anonymous journal peer reviews.

I received email responses for an earlier column quite critical of the limitations of a study that’s still often cited (*Feedstuffs*, May 12, 2003). The gist of the emails was that they appreciated some critique of a study that they had found lacking in how it was done and how results have often been extrapolated.

Periodically, I have also been asked to write a book on calves and heifers. My response was always that it was not something I could see myself doing and that it would be a massive task.

Then, in 2016, the *Journal of Dairy Science* asked me to author a 100-year review on calf nutrition and management for the 100th anniversary of the journal. Again, my response was that it was not something I could see myself doing. The rejoinder from the editor was that while I should be the lead author, I did not have to do the whole review by myself. After some further thought, I agreed to do the review.

The key was establishing a rationale and then recruiting Mark Hill, Jim Quigley, Jud Heinrichs, Jim Linn and Jim Drackley to do 20-year-segment reviews, in that chronological order. The difficulty I had was in getting some of those 20-year reviews pared down enough to fit the page limitations for the overall review in the journal (Kertz et al., 2017).

I think those authors created a masterful review. I still find myself periodically going back to it. For instance, the origin of an early weaning program was in the 1920s with various Cornell University studies (Kertz et al., 2017). So, perhaps it was fitting that the paradigm shift to feeding more and higher-protein milk re-

## Bottom Line

with  
**AL KERTZ\***



placers began around 2000 with studies at Cornell (Tikofsky et al., 2001).

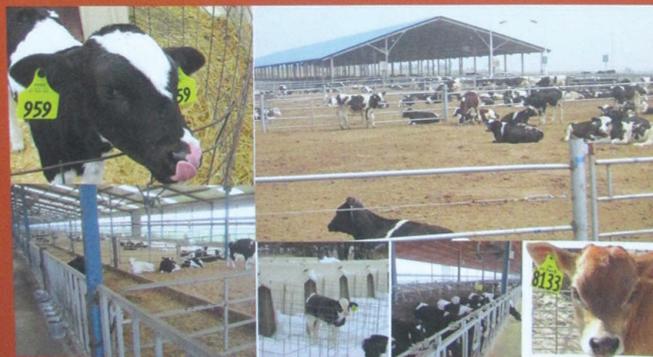
Sometimes, it takes a different setting or an unexpected jolt to make something happen. That occurred around 2007, when I was reviewing preweaned calves in hutches on a large dairy in another country. The dairy was feeding calves a pelleted starter. It dawned on me that very few calves seemed to be ruminating

up to two months old. I walked through the calves again, and my impression was confirmed (this has happened a number of times since then).

After I returned home, I called John Porter with the University of New Hampshire Extension Service and worked with him to get his master’s of science thesis project (done in 1972) published in the *ARPAS Journal* (Porter et al., 2007).

The jolt came at the 2018 European Federation of Animal Production annual program. At the end of an invited presentation on colostrum, I asked the speaker a question. At the break immediately following the presentation, we engaged in further discussion on that topic.

## DAIRY CALF AND HEIFER FEEDING AND MANAGEMENT SOME KEY CONCEPTS AND PRACTICES



Alois (Al) F. Kertz, Ph.D., Dipl. ACAN

\*Dr. Al Kertz is a board-certified, independent dairy nutrition consultant with AND-HIL LLC based out of St. Louis, Mo. His area of specialty is dairy calf and heifer nutrition and management.

As we finished, another person came up and introduced himself as a veterinary professor who also had some dairy farm clients. Then, he looked straight at me and said forthrightly: "Don't stop writing your articles on calves and heifers. I read all of them." He told me effusively how useful my articles and recommendations had been for him and his clients.

One example he cited was with a dairy farm that had extensively revamped its calf and heifer program. Over the next three years, the rolling herd average increased from 8,000 liters annually to 11,000 liters — a 38% increase.

I have seen some cases where beneficial calf and heifer program changes have shown up in the rolling herd average over just six months following a significant change, but in most cases, it takes the full two-year growth period and the first full lactation to show full benefits.

That made me feel that the onus was on me to take another look at publishing a calf and heifer book. Later in 2018, it began to dawn on me: I had already written that book, but in segments as *Feedstuffs* articles.

In January 2019, I called *Feedstuffs* editor Sarah Muirhead about my publishing such a book. She was magnanimous in supporting my doing so and gave me permission to use the articles I had written for *Feedstuffs*, for which it owned the copyright. She also reminded me that *Feedstuffs* does not publish books.

Over the next five months, I sorted through more than 100 of my *Feedstuffs* columns, selected and organized many of them into logical chapters, edited and tied them together and created a large document for the book. After some dis-

cussion and counsel from Federation of Animal Science Societies staff and some other key individuals, I searched the internet to find potential self-publishing book companies and contacted Outskirts Press Inc.

After a discussion of options, I signed a contract for Outskirts to publish, distribute and handle the financial affairs for the book. One particular item was the price per copy, which I wanted to be low enough that even with tax and shipping, the book would cost less than \$50 each. At that price, I felt that even students — particularly graduate students — could afford to purchase a copy. Within six weeks, starting July 31, 2019, the book was published and available for purchase. I was astonished at that timetable and results.

The book index includes:

- Chapter 1 — Introduction and USA Demographics.
- Chapter 2 — Colostrum.
- Chapter 3 — Milk Replacers.
- Chapter 4 — Calf Starters.
- Chapter 5 — Water.
- Chapter 6 — Post-weaned Transition Month.
- Chapter 7 — Heifers.
- Chapter 8 — Other Management Issues.
- Chapter 9 — Evaluations.

Some might question what's in it for me. I felt that if I broke even, it was worth it. What I have found since it was published is that I often go to the book to find answers to my own and others' questions. That is much easier and quicker than going through files on my computer trying to find the right article.

Outskirts Press uses several distributors, and you can also find reviews online through one distributor. I know some of

the online reviewers, but anyone can write a review anonymously. I now carry a copy of the book in my briefcase for my own reference and for anyone else to view.

A Chinese translation also will be available this fall through Beijing World Wide Sires.

## The Bottom Line

A year ago, I self-published the book *Feeding & Management of Dairy Calves & Heifers — Some Key Concepts & Practices*. This article explains the genesis of that book. Readers of this column may find it useful because it is comprised of key columns I have written on these pages since September 2001. Various book options are available at <https://outskirtspress.com/dairycalfandheiferfeedingandmanagement>.

## References

- Kertz, A.F. 2019. Dairy Calf & Heifer Feeding & Management — Some Key Concepts & Practices. Outskirts Press. 166 pages.
- Kertz, A.F., T.M. Hill, J.D. Quigley III, A.J. Heinrichs, J.G. Linn and J. Drackley. 2017. Calf nutrition and management: A 100-year historical review. *J. Dairy Sci.* 100:10151-10172.
- Porter, J.C., R.G. Warner and A.F. Kertz. 2007. Effect of fiber level and physical form of starter on growth and development of dairy calves fed no forage. *The Prof. Anim. Scientist* 23:395-400.
- Tikofsky, J.N., M.E. Van Amburgh and D.A. Ross. 2001. Effect of varying carbohydrate and fat content of milk replacer on body composition of Holstein bull calves. *J. Anim. Sci.* 79:2260-2267. ■