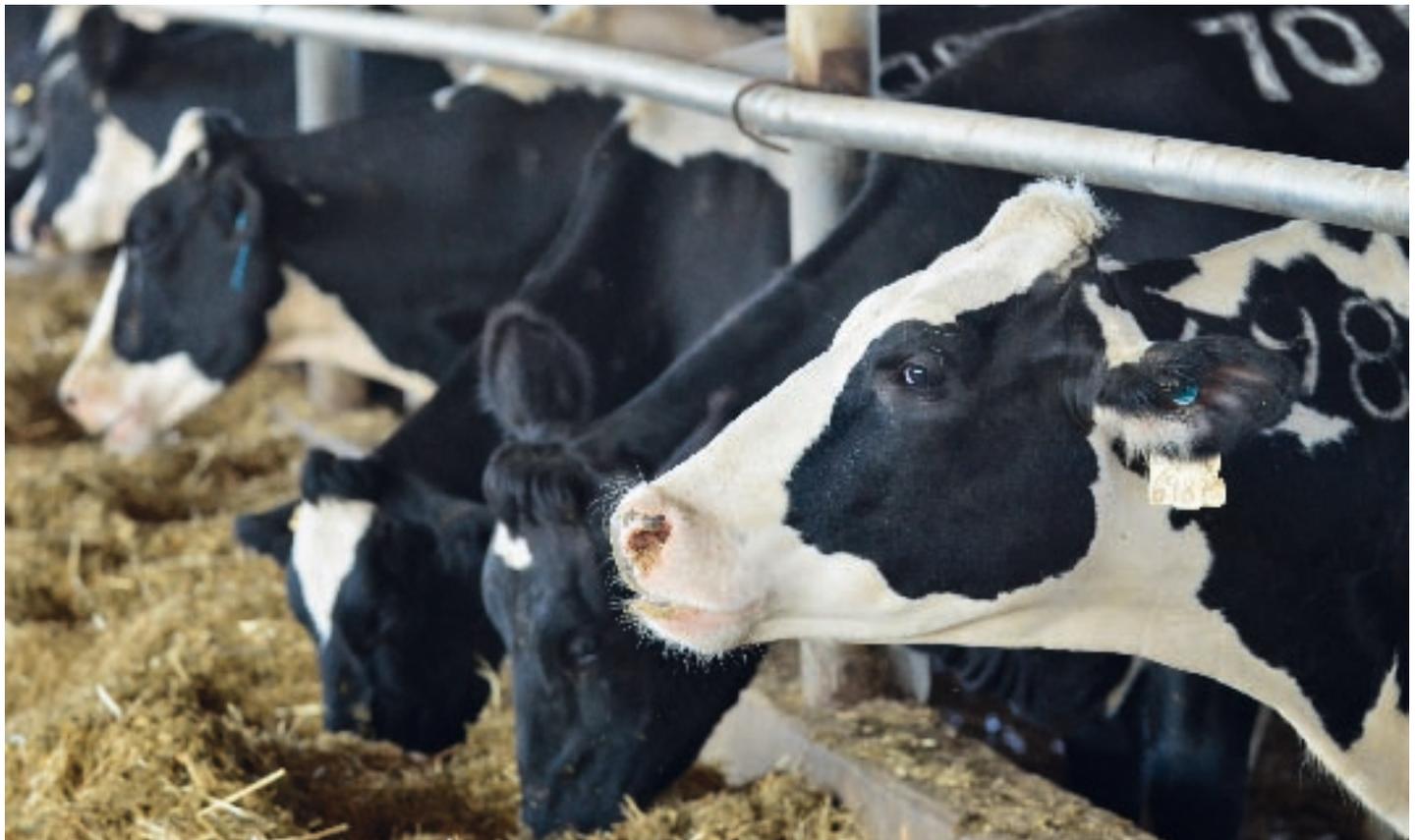


Win-win cooperation between software maker and dairy consultancy



Making use of each other's competencies created a win-win situation for software provider FMS and dairy consultancy group CVNA in creating a programme for balancing rations to meet amino acid requirements of dairy cattle.

In response to worldwide demand, US software provider Feed Management Systems (FMS) has collaborated with Central Valley Nutritional Associates (CVNA) to develop a combined software solution for dairy nutritionists, consultants and salespeople that effectively addresses a longstanding challenge they face in balancing dairy cattle rations to meet amino acid requirements. John Foley, portfolio manager at FMS explains how it all came together.

By John Foley, Formulation Portfolio Manager, Feed Management Solutions, USA

Balancing rations to meet amino acid requirements of dairy cattle presents interesting challenges for a software company. The situation for us as a software provider could roughly be summarised in five main issues, each being a challenge to overcome. Against the backdrop of the five issues, we sought what, for us, would be a unique new approach

to serving our customers. We signed a collaborative agreement with Central Valley Nutritional Associates (CVNA), an organisation in the business of both providing nutrition and management consulting services to large dairies and developing Formulate2 ration formulation software (originally, primarily to serve the needs of their consulting practice). The project can be summarised as follows:

Issue #1: Many customers were interested in amino acid balancing, but their knowledge about how to use it to encourage desired cow performance ranged from novice to expert. Our challenge was that as a software company, we focus on developing software and helping customers use it. We don't have the resources to deliver nutrition, or "science," training.

Solution: CVNA's "Conference room to parlour" training programme teaches our customers all they need to know about the National Research Council (NRC) Dairy 2001 model and amino acid balancing according to the model developed by Dr. Charles G. Schwab's team at the University of New Hampshire. FMS did not enter the business of nutrition training. This training is managed and invoiced to customers by CVNA.

Issue #2: Amino acid balancing for ruminants is not a typical linear problem to solve because two streams of amino acids must be estimated – rumen "bypass" and microbial – both of which are dependent upon the makeup of the entire ration. This means that specific software capability and/or technical nutrition knowledge is required to achieve the non-linear solutions required for amino acid balancing.

Issue #3: Generating solutions from software programmes containing nutrient requirement models often requires deep nutrition expertise and knowledge about the model and, still, a lot of "tweaking" may be required before a feasible and practical solution is achievable. Busy feed industry nutritionists, consultants and sales people

sometimes prefer to avoid the guessing games required by some ration evaluation software.

Solution #2 and #3: CVNA developed Formulate2 Core Components to work with our Feed Ration Balancer (FRB) programme to deliver a fully NRC-compliant model in formulation, not evaluation, mode. To our knowledge, it's the only programme in the world that accomplishes one-pass formulation capability for both NRC Dairy 2001 and the amino acid model, providing the non-linear solution required to meet the amino acid requirements of dairy cattle.

Issue #4: People who formulate rations become accustomed to their software. For example, our software is highly customisable, allowing customers to enter brand names and logos, proprietary ingredient libraries and preferred nutrient requirements equations. Also, it exchanges data with the software used to formulate the company's products. Bottom line: the resource cost for switching to a new programme is high. This implies that customers don't want to re-create ingredient databases or learn to use new software when they add amino acid balancing functionality. Also, if they have been using customised nutrient requirements equations, they don't want to switch to animal modelling software that does not allow modifications to equations.

Solution: FRB and Formulate2 Core Components are synced so the familiar user interface and functionality of FRB is there for our customers. Yes, there are some new buttons, dialogue boxes, nutrient specifications, and other things to learn, but they are minor compared to learning an entire new programme.

Issue #5: Influenced by prices of office suite software, purchasers of ration formulation software expect it to be relatively inexpensive. However, formulation software is complex and expensive to develop and, with a relatively small user base in the animal industries, managing cost per user is difficult.

Solution: The additional cost has been tolerable for our customers. FRB is a multi-species ration balancer. The cost

of adding amino acid balancing for dairy cattle is about the same as adding a species to the programme.

This journey has taken some time and effort, but both FMS and CVNA are excited about the opportunities that lie ahead. FMS will provide CVNA with access to a global market while CVNA provides FMS customers access to training and amino acid balancing that have been lacking in FMS' offering. In a network-enabled world, we fully expect that there will be other opportunities like this one where organisations join forces to better serve customers while focusing resources of the individual organisations on what they can do best. [AAF](#)