FEEDING TIME

BY DAN PELTON, *FEATURES EDITOR*
PHOTOS BY RON NG

Pet-food manufacturer turns to robust labeling technology to enhance product ID and get ready for a RFID future

While the word pet-food almost immediately brings to mind a picture of loveable dogs and cute cats, it wasn't always thus.

Back in 1893, an enterprising young man named William Danforth set out to make it in the business world in the city of St. Louis, Mo., with these words of encouragement and advice from his father: "Get into a business that fills a need for lots of people; something they need year-round and in both good and bad times."

That was the era when a horse-and-buggy was your chief form of transportation, and it just wouldn't work very well if your horses—whose main dietary staples consisted of oats and corn—weren't properly fed and cared for.

For the less-better-off, the problem was twofold: oats were usually just too costly, and when corn went bad, as it often did, it caused a lethal form of colic that regularly killed thousands of horses each year.

In a stroke of entrepreneurial inspiration, Danforth became the driving force behind the newly-formed **Robinson-Danforth Commission Company**, which started out by selling 175-pound, hand-sewn sacks of a horse-feed mixture that was billed: "Cheaper than oats and safer than corn."

Over the course of following decades, unwavering dedication to producing a healthful, quality product allowed the company to go from strength-to-strength—blossoming into the global pet-food giant **Ralston Purina**.

In 2001, it was purchased by Swiss-headquartered multinational food giant **Nestlé**, leading to yet another name change: **Nestlé Purina**.

At Nestlé Purina's sprawling, facility in Mississauga a short drive west of Toronto—the company produces produces a broad range of dog foods and cat foods for the Canadian market.

The production volumes handle at the facility are staggering. The plant, in operation since 1960, recently found itself in need of a robust new system for labeling the huge number of pallets of product shipped out of the busy facility, which together with a sister plant in western Canada, supplies virtually all of Canada's grocery retail community coast-to-coast.

KEEPING TRACK

Keeping track of all these products as they move through the vast supply chain requires extensive resources and technological know-how. To obtain this technical expertise, Nestlé Purina recently recruited the services of product identification technologies specialists **Ahearn & Soper Inc.**

Headquartered in Toronto, the company is a well-established entity in the product ID business, specializing in implementation of barcoding technologies in the manufacturing industry. It employs about 150 people at seven facilities across North America, and earns about $50 million in annual revenues.

After evaluating Nestlé Purina's requirements, Ahearn & Soper decided to answer the call with the installation of a *3138-N Dual Action Tamp Printer* labeling machine manufactured by Fullerton, Ca.-based **Label-Aire Inc.**, the labeling machinery arm of industrial equipment group **Impaxx, Inc.** of Fullerton, Ca.

The heavy-duty, dual-action air cylinder tamp on the *3138-N DAT* is designed to rotate the full 90° across the conveyor to apply the first printed label, while the second, straight-line stroke extends to apply a second label onto the side-panel.

"We had to equip the machine with the correct arm length," recalls Ahearn & Soper product manager David Gravelle, "so we could reach out on to the pallet and put the label on the correct spot.

"We also developed the software to send the label information to the applicator," Gravelle told *Automate Now* during a visit to the Mississauga plant.

With its stainless-steel and anodized aluminum construction to satisfy the plant's health-related regulatory requirements, the *3138-N Printer* Applicator also features automatic set-up, enhanced two-line digital display with full-error messaging, multiple programmable label pages, rate compensation for improved label accuracy, and advanced, user-configurable input/output (I/O) connectivity.

It handles labels up to 7.2-inches-wide and seven-inches-long, with dispensing speeds of up to 16 inches per second, depending on printer and label size.

The labeler-applicator is hooked up to a PC on the plant floor.

"The short-term goal here was to replace the inkjet system," says Gravelle, "but the long-term plan is to create an interface between the WMS (warehouse management system) and the label applicator. We needed a PC on the floor to do that."

Adds Newcombe: "It's a stand-alone system right now but we're looking to tie it into the production computer system in the near future."

The system is currently used to display expiry dates and some basic production information, such as the date and time of manufacture, and the line it came off.

There is another pressing technological issue a solutions provider like Ahearn & Soper has to pay particular attention to when it comes to addressing its clients' needs.
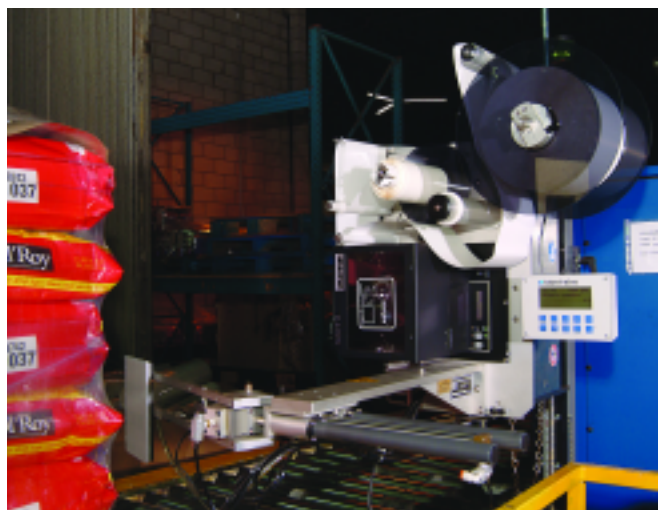
Namely, it will be the inevitable implementation of radio frequency identification (RFID) technologies, which manufacturers will certainly have to deal with so they can meet the pending RFID compliance deadlines for their key Big Box retail customers.

The burgeoning RFID technology, while promising, is causing concern.

There is a general apprehension about this still-developing technology, with cited tag failure rates of up to 30 per cent. Dan Poynz, Ahearn & Soper's manager of national line automation sales, says companies such as Label-Aire are working day and night to mitigate the perceived shortcomings.

"What Label-Aire has done is develop and perfect application systems that can reduce the failure rate by enabling a system to have a tag that doesn't emit a signal to be taken off and not put on the product," Poynz states. ❏

Tony Newcombe, senior project engineer at the Nestlé Purina plant in Mississauga, is flanked by Ahearn & Soper's David Gravelle *(left)*, and Don Poyntz, who worked with Label-Aire to install the plant's labelling system.

The Label-Aire printer/applicator was customized to properly affix labels on the pallets shipped from the Nestlé Purina plant.

A PC is in place on the labelling system as plans are in the works to further integrate the system with the plant's warehouse management system (WMS).