

A wide-angle photograph of a vast field of golden wheat or barley, with a bright sun low on the horizon creating a lens flare effect. In the background, there are dark, silhouetted mountains under a clear sky.

ICBA: Advancing Dairy Farming in Israel to World-Class Standards with SAP® Solutions

Executive overview

Organization

Vision

Why SAP

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Benefits

Organization

Israel Cattle Breeder's Association (ICBA)

Industry

Consumer products – agriculture

Products and Services

Professional services, dairy industry advocacy

Web Sitewww.icba-israel.com**SAP® Solutions**

SAP® SQL Anywhere® suite, SAP PowerBuilder® application development tool

PartnerNess Technologies (www.ness.com)

Israel Cattle Breeder's Association (ICBA) is an agricultural cooperative established more than 85 years ago. Today, it serves over 90% of Israel's dairy farmers, representing the dairy industry at the policy level and helping advance **world-class dairy herd management practices** using state-of-the-art record-keeping applications built with the SAP® PowerBuilder® application development tool and running on the SAP SQL Anywhere® suite.

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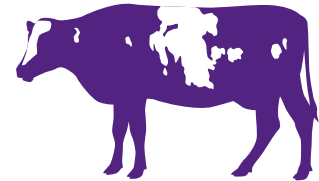
Solution

Benefits

Modernizing dairy farming through services and technology

ICBA is a cooperative of more than 800 dairy farmers. Since 1926, the organization has been the sole representative of all milk producers in the country and provides a range of professional services aimed at advancing Israeli dairy herd management practices. These efforts have resulted in a highly efficient dairy industry. As the result of more accurate information, careful breeding, and applied knowledge, the Israeli cow now produces the highest milk yields in the world.

The pivot point of the organization is the National Herdbook that collects information on more than 100,000 milking cows across 800 farms, including milk production, breeding history, feed formulation, and veterinary records. The Herdbook provides integrated and detailed information regarding the Israeli dairy herd that can be used by farmers, extension advisors, veterinarians, insemination labs, and others to improve the vitality and efficiency of the Israeli dairy industry.



100,000

Milking cows
tracked annually



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Creating a world-class dairy industry

Agricultural practices in Israel have centered on the need to overcome scarcity – of water, land, and labor – as almost half of Israel’s land area is defined as a desert. In order to sustain a rapidly growing population in these arid conditions, Israel was one of the first countries to establish intensive farming production systems. Through this experience, gained over more than 50 years, as well as close cooperation among researchers, farmers, veterinarians, and agriculture-related industries, Israel’s dairy industry has evolved to become one of the most advanced in the world.

ICBA is playing a significant role in helping Israeli dairy farmers hone scientifically driven and technology-enabled herd management practices.



11,700 kg

Average annual milk yield
per Israeli cow

By providing centralized information, services, and modern technology solutions, ICBA assists dairy farmers with state-of-the-art tools and methods to monitor and manage their herds more uniformly and efficiently.



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Powerful technologies in a small, efficient package

As Israeli dairy herds expanded in size and scope in the 1990s, farmers looked to ICBA for a more efficient technology-based herd management system. The idea was to create an enterprise resource planning–like solution to track and manage all the different activities that occur each day and with each cow on the farm – and to communicate with suppliers, veterinarians, and advisors. At the same time, ICBA needed a more efficient way to capture relevant data in the National Herdbook for analysis and research. The NOA system was born.

Eighteen years ago, when this effort first began, there were no ready-made herd management applications to choose from. A small team at ICBA looked for a development environment that would give them

the flexibility to design an application to their exact requirements. They also needed a rugged yet light-weight embedded database capable of tracking years' worth of herd data. While farmers in Israel tend to be highly educated, they are not technical, and ICBA knew that the herd management system would have to run smoothly and efficiently without a lot of IT intervention.

Using SAP PowerBuilder, a small team at ICBA in partnership with Ness Technologies was able to quickly design and develop the NOA system that is now used extensively across Israel. A workgroup database based on SAP SQL Anywhere is embedded in each NOA system to capture data quickly, reliably, and in a way that is virtually transparent to the farmer.

“The NOA system is often used by farmers in remote areas, so we needed a dependable database that requires very little administration. We chose SAP SQL Anywhere because it just runs.”

Boaz Hanochi, Product Manager of NOA Software, Israel Cattle Breeder's Association



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Experienced local developer speeds time to solution

For assistance with design and development, ICBA turned to Ness Technologies, a global IT services provider and an SAP and Sybase partner with a strong local presence in Israel. Having worked with technologies from Sybase, now an SAP company, for more than 25 years, Ness was able to help ICBA build the new NOA applications on SAP PowerBuilder and SAP SQL Anywhere more quickly and economically.

Since 2000, Ness has been involved in the planning, integration, and implementation phases of building and deploying ICBA's applications for Israel's dairy farms. Ness consultants work directly with the ICBA team on-site.

Over the years, Ness has assisted ICBA with version upgrades, adjusting Unicode features and resolving performance-related issues during the upgrade process. The NOA application currently runs on SAP SQL Anywhere, release 11 for Microsoft Windows. ICBA is now evaluating the newest releases of SAP PowerBuilder and SAP SQL Anywhere. By staying at the forefront of SAP technology innovations, ICBA applications will continue to support hundreds of remote sites without any technical issues for farmers in the field.

“We are working to keep ICBA at the forefront of technology innovation, with solutions that can continually improve insights and efficiencies for Israeli dairy farmers.”

Nestor Cohen, SAP Solutions Manager at NessPRO, Ness Technologies



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Embedded database tracks and manages herd data dependably

The NOA program has been designed to address all aspects of dairy farming. The farmer enters daily data such as calvings, cows that are “dried off,” new acquisitions, culled cows, pregnancy check results, and veterinary information. Once a month all information is transferred to the Herdbook database, and a series of logical checks is applied to correct mistakes.

The NOA system runs on each farm’s PC and provides the farmer with different modules to streamline otherwise time-consuming activities. For example, when preparing for a veterinarian’s biweekly visit, the farmer can easily print out a checklist for the vet, making efficient use of time. Another module communicates with the centralized feeding operation

that individualizes total mixed rations for better health and higher milk production. Sensors on milking equipment analyze milk composition and communicate with the NOA system, providing the farmer and ICBA with important feedback on how to improve the quantity and quality of milk produced.

ICBA recently launched iNOA as a mobile extension to the NOA application. Farmers can view and input data from the field using an Apple iPhone or iPad. Data syncs wirelessly with the farm’s NOA system.

Embedded into each NOA system is a self-running database based on SAP SQL Anywhere that is ideal for zero-administration environments and capable of easily managing from 20 MB to 600 MB of data, depending on herd size.

“NOA has proved to be very effective as a herd management tool because it is easy to use, data input is fast, and it saves the farmer time and money.”

Boaz Hanochi, Product Manager of NOA Software, Israel Cattle Breeder’s Association



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Accurate information creates world-class efficiencies

The NOA system is a powerful tool for decision making because it captures up-to-date information about all dairy activities and streamlines reporting and record keeping. By replacing paper-based records with sophisticated technology and centralized access to services and information, ICBA has helped create dairy management practices that are among the best in the world.

The SAP PowerBuilder application development tool allows a small professional team to build and maintain this expansive application. "When a group from DeLaval, one of the largest dairy industry suppliers, evaluated our technologies, they were amazed that a small team of two to three people could accomplish as much as we have," says Boaz Hanochi, NOA product manager for ICBA. "SAP PowerBuilder allows us to do almost all we need in a simple and straightforward way," he adds.

SAP SQL Anywhere keeps the costs of running NOA low for both the farmer and ICBA. The database is efficient and runs on commodity hardware, so the

farmer doesn't have to keep purchasing expensive computers and storage. It is also incredibly easy to maintain, minimizing support calls to ICBA staff.

In a hot, dry country, Israeli herd managers need to use every advantage to overcome the lack of pasture and water that dairy farming typically requires. Through the NOA herd management system, comprehensive dairy farm management is possible with a single integrated and user-friendly program.

90%
Of dairy farms
in Israel supported



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