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Report Name: Dairy Sector Facing Quality and Supply Challenges

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Report Highlights:

Thailand's domestic milk production continues to struggle as the domestic fluid milk demand shrinks amid a declining birth rate and strong competition from imported dairy products. At the farm level, volatile feed prices and limited access to capital further constrain farmers' ability to maintain production efficiency and competitiveness.

Overview

Thailand's Ministry of Agriculture and Cooperatives (MOAC) reported that in 2025, the country had 15,638 dairy farmers (Figure 1) and a total dairy cow population of 560,551 (Figure 2), of which 44 percent were in-milk. Smallholder farmers managing herds of fewer than 20 cows produce most of the country's fluid milk.

Thailand's dairy industry continues to face significant challenges: high production costs driven by feed and energy expenses, declining domestic demand that remains heavily dependent on the national school milk program, and competition from imported products that are both cheaper and higher in quality. Limited capital constrains farmers' ability to absorb rising feed costs or invest in new technology, widening the quality gap with imports. Low milk-solids content in domestic milk further limits processing efficiency and yield for high-value products like butter and cheese. According to contacts, shrinking school milk demand and rising reserves compound these pressures, weakening profitability and is reportedly driving farmers out of the sector with milk surplus being poured out, used as animal feed, or converted to fertilizer.

Figure 1 - Thailand: Number of Dairy Farmers

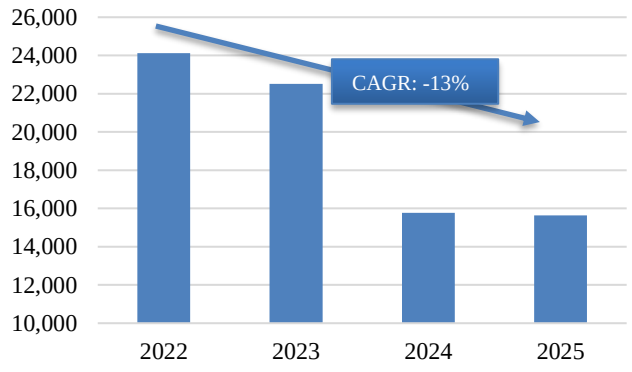


Figure 2 - Thailand: Number of Dairy Cows (Heads)

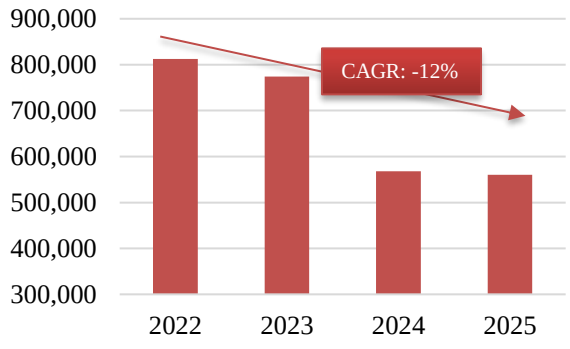
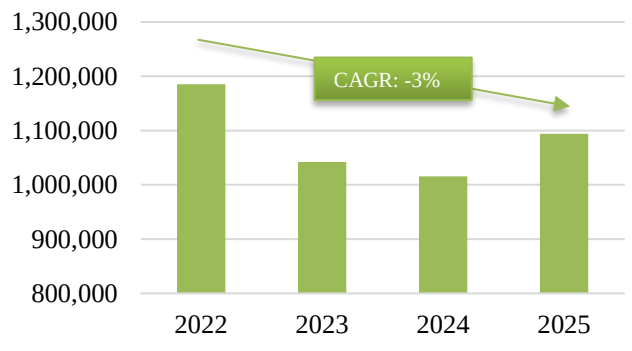


Figure 3 - Thiland: Milk Production (Metric Tons)



Source: Office of Agricultural Economics (OAE), MOAC
Note: CAGR stands for Compound Annual Growth Rate.

Saraburi, Nakhon Ratchasima, Lopburi, Chiang Mai, and Ratchaburi are Thailand's top milk-producing provinces.

Quality Challenges for Domestic Milk Production

Heat Stress

Most dairy cows in Thailand are Holstein Friesian, a breed that originated in the cooler climates of the Netherlands and Germany. Under favorable conditions, research suggests these cows can produce 25-30 liters of milk per day, but Thailand's tropical climate places them under heat stress, cutting production to around 12 liters per day according to local contacts. Medium and large farms can afford cooling systems, but more than half of Thailand's raw milk comes from smallholders who often lack access to capital. Heat stress and poor milking hygiene (e.g., bacteria transferred from hands to teats to equipment) raise infection risk and drive-up somatic cell counts (SCC) in milk. Incorrect vacuum pressure or pulsation, poor machine maintenance, and inadequate cleaning further increase teat damage and bacterial transmission.

Feed Issues

Industry contacts report that lack of roughage is a major issue in dairy cow feed, as high-quality forage is available only during the rainy season and scarce otherwise. To compensate, farmers often rely on rice straw — cheap and widely available, but low in the protein cows need. This seasonal fluctuation in feed quality leads to inconsistent milk yield and quality. Industry contacts also report the use of corn husks and pineapple husks, depending on region and accessibility, though these likewise offer poor nutritional value and insufficient protein. As a result, farmers turn to concentrate feed for additional nutrition, driving up production costs. Long-term price data is unavailable, but according to Thailand's Department of Livestock Development (DLD), the price of 16 percent protein feed concentrate rose from $0.40/kg (12.83 baht/kg) in July 2025 to $0.43/kg (13.34 baht/kg) in January 2026.

Logistical Hurdles

A lack of cooling tanks accelerates bacterial growth in raw milk, undermining both quality and farmer incentives. Contacts shared that Thai dairy farmers typically deliver raw milk to milk collection centers (MCCs) twice daily — morning and afternoon — but the hours milk spends sitting in containers before delivery raise SCC. MCCs and cooperatives generally require farms to be within a 20-km radius, though some farmers reportedly travel from as far as 60 km. Since farmers often transport the milk themselves, prolonged transport in high temperatures further accelerates quality deterioration.

Fluid Milk Pricing Structure

In Thailand's dairy system, farmers, cooperatives, and processors sign a memorandum of understanding (MOU) governing the purchase of fluid milk. These agreements guarantee farmers a market and a baseline purchase price set by the Milk Board. Under the 2025/2026 MOUs, the 158 raw-milk collection centers hold a combined contracted purchase volume of 3,024.53 tons per day. However, processors are purchasing only 2,841.2 metric tons (MT) per day — about 94 percent of the contracted volume — leaving more than 183 MT of raw milk per day without buyers.

Under MOU terms, farmers receive a Milk Board–set price of about $0.62 (21 baht)/kg. Farmers selling outside the MOU system must use other channels, where buyers reportedly pay as little as $0.37–0.43/kg (12–14 baht/kg).

Rising Supplies of Fluid Milk

According to local government and industry contacts, Thailand's recent growth in fluid milk stems from several factors, ranging from declining demand under the school-milk program to reported competition with rising imports of dairy products.

Launched in 1992, the school-milk program aimed to improve child nutrition while supporting dairy farmers. It accounts for 30 percent of total domestic milk demand and relies entirely on domestic supply. The program served over 7 million students (Grades 1-6) in 2020, but enrollment fell to 6.5 million by 2024. With a declining enrollment base, the sector's main buyer has proportionally reduced the volume processors can sell through the program, leading to accumulated stock. School breaks compound the problem: demand drops further while milk production continues uninterrupted, leaving processors with existing inventory on hand and less capacity to absorb new raw milk from farmers.

Domestic raw milk quality issues, combined with market liberalization under free trade agreements such as the Thailand–Australia Free Trade Agreement (TAFTA) and the Thailand–New Zealand Closer Economic Partnership (TNZCEP), have expanded opportunities for dairy imports in the Thai market. Under these agreements, Thailand eliminated tariff-rate quotas for skimmed milk powder, milk, and cream effective January 1, 2025, reducing applicable tariffs to zero. Industry contacts report that Thai processors favor imported dairy for its consistent quality and year-round supply, while producers of high-value products like cheese and butter prefer imports for their higher milk-solids content — a key factor in production.

Meanwhile, the state-owned Dairy Promotion Organization of Thailand (DPO), which purchases raw milk from domestic dairy farmers as part of its broader role in supporting the dairy sector, continues amassing significant debt. In 2024, the DPO reported losses exceeding $11.4 million (400 million baht), up $4 million (140 million baht) from 2023, with total liabilities of about $57 million (2 billion baht). A more immediate concern is DPO's unpaid raw-milk bills: by 2026, arrears reportedly exceeded $18 million (600 million baht), affecting more than 26 cooperatives and leaving farmers without capital.

Recent Policy Responses by the Thai Government

The Thai government is implementing a four-prong approach to draw down the domestic raw milk surplus and to strengthen demand for locally produced milk.

- Expand the school milk program: On August 11, 2026, the Cabinet approved expanding the program to secondary students (Grades 7–9) from November 2026 so the eligible student population would increase from around 6 million to more than 6.6 million students. This initiative aims to reduce inequality, particularly among low-income families in remote areas, ease the financial burden on parents, and strengthen the domestic fluid milk market by increasing raw milk purchases by 87.202 tons a day, thereby supporting dairy farmers and the broader dairy industry.
- Increase DPO's role in surplus milk purchasing: MOAC plans to seek approval from the Milk Board to increase DPO's current 10.09 percent allocation under the school milk program, thus creating an additional outlet for surplus raw milk.

- Financial support to DPO: On April 28, 2026, the Cabinet approved an $18.6 million (600 million baht) zero-interest loan from the Farmers' Aid Fund for DPO to purchase raw milk and pay farmers. DPO will repay the loan over seven years, providing it with additional working capital to absorb excess supply.
- Explore higher-value uses for milk: The Ministry of Higher Education, Science, Research and Innovation (MHESI) announced on July 21, 2026, that it is exploring commercial opportunities to process milk into higher-value ingredients for cosmetics, skincare, and food industries. This could create new sources of demand beyond traditional dairy products.

Opportunities for U.S. exporters

Thailand's growing health-conscious consumer base has fueled rising demand for protein-fortified milk and whey protein, with the United States a leading supplier of Whey Protein Isolate (WPI) to the market. U.S. cheese products have also gained traction as Thai consumer preferences shift toward Western flavors — notably pizza, burgers, and even cheese-topped instant noodles. Mozzarella remains the most widely consumed and familiar variety, while others, including ricotta and burrata, are steadily gaining popularity (TH2025-0024).

According to industry resources, liberalizing U.S. corn and other feed ingredient imports could lower feed costs for Thai dairy farmers, which would improve their margins and reduce the cost of producing each liter of milk. Imported feed additives, which Thailand still relies on because they use more advanced technology and fermentation, could help heat-stressed cattle maintain rumen function, performance, and consistent product quality. Additionally, sources report that U.S. dairy cattle genetics could also raise milk yields and lower operating costs through selective breeding.

Attachments:

No Attachments.