PCAARRD Investment Brief No. 10/2012



"Providing science solutions for a vibrant agriculture, forestry, and natural resources"

Summary of financial analysis for a 25-dairy cattle module (in ₱)

Capital costs	4,123,000.00
Pasture establishment	220,000.00
Farm and infrastructure facilities	165,000.00
Purchase and installation of farm equipment	243,000.00
Purchase of dairy animals	1,295,000.00
Land	2,200,000.00
Initial working capital	934,973.00
Total capital investment	5,057,973.00
Ave. annual net income	644, 010.29
Internal rate of return	22%
Net present value at 15% discount rate	923,617.15

Sources:

National Dairy Authority (NDA) NDA Building, BAI Compound Visayas Avenue, Diliman, Quezon City Phone: (02) 929-1492; 0737; 6755

Telefax: (02) 926-8847

Website: http://www.nda.da.gov.ph

Before investing on the enterprise, we advise that you visit an actual farm near you.

For more information, please contact:

Dr. Patricio S. Faylon

Executive Director PCAARRD, Los Baños, Laguna

Tel. Nos.: (63)(049) 536-0014 to 15, 536-0017 to 20, 536-5907; 536-2330; 536-2305; 536-2383;

536-1956; 536-6980

Fax Nos.: (63)(049) 536-0016/536-7922 Email: pcarrd@pcarrd.dost.gov.ph Website: http://www.pcarrd.dost.gov.ph



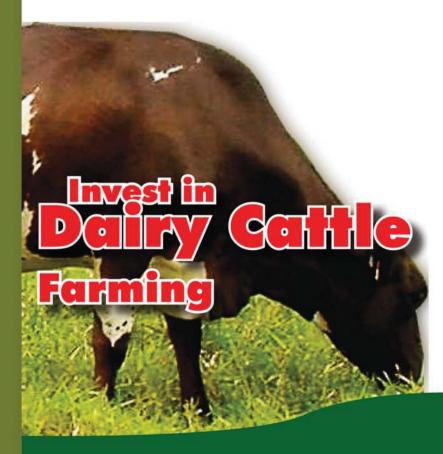
DEPARTMENT OF TRADE & INDUSTRY BUREAU OF MICRO, SMALL AND MEDIUM ENTERPRISE DEVELOPMENT (BMSMED)

5/F, Trade and Industry Building 361 Sen. Gil J. Puyat Ave. Makati City Trunkline No.: 751.0384

Tel. Nos.: (02) 897.1693 / 897.7596 / 890.4968 Fax No.: (02) 896.7916 • Email: bmsmed@dti.gov.ph www.dti.gov.ph



Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) Department of Science and Technology (DOST)



Why invest in dairy cattle?

It is vital to develop the local dairy industry considering that local milk production constitutes only 5% of the total demand for milk. If more farmers venture into dairy farming, the additional milk production can go a long way to help the local milk industry flourish.

Dairy cows under local conditions can produce 10–12 L of milk for an average of 300 lactation days and these can be processed into different dairy products.

It is recognized that the country is endowed with good climate and rich natural resources suitable for dairy production. Land, labor, local dairy cattle and tropical dairy production technologies are readily available.

Entrepreneurs who would like to invest in dairy farming have several options. They can start with 5—10 dairy cows or start at a semi-commercial level of 20—25 cow module depending on the resources available such as land that is owned, purchased, or leased. A farm with 25 head of dairy cattle can produce breedable heifers for other dairy farmers and supply additional milk for the cooperative or local dairy processors.

What products can I get from dairy cattle farming?

Milk is the most important product from dairy farming. After deducting milk fed to calves, all of the milk may be sold to the cooperatives or local milk processors to produce different dairy products such as pasteurized fresh milk, flavored milk, cheeses, ice cream, fermented milk, and confectioneries. Some dairy farmers sell their milk directly to the consumers or engage in home-based processing and dairy products retailing, to increase income.

In the 25-dairy cattle module, all the male calves may be sold at 7 days old. They are kept for another month by the buyer and sold as roasted calf. The module will maintain only 25 cows at any given time; thus, some replacement heifers can be sold to the other dairy farmers. Culled bulls and cows will also be sold for their meat.

How much initial investment do I need?

The 25-dairy cattle module is considered semi-commercial dairy farming in the Philippines. Assuming that land is owned or purchased, one needs a total amount of ₱5.06 million to start the business. One may either invest his own capital or apply for a loan as 70% of investment. An entrepreneur needs to invest in the following:

- · 3 ha of land for cut and carry forage production
- 8 ha of land for animal grazing
- 25 head of locally-born dairy heifers with 62.5–75% dairy blood
- · 1 head "pick-up" bull with minimum of 75% dairy blood
- 130 m² housing for the animals and feed storage
- 20 m² area for milking and milk room
- · electrical and water system
- 1 unit portable milking machine (double bucket/ double claw)
- 4 units 40 L capacity milk cans
- 2 units 10 L capacity milk cans

- 1 unit 50 kg weighing scale
- · 1 unit grass chopper
- 1 unit electric fence controller
- 1 unit 250 L capacity cooling tank
- Initial working capital for first year operation in the amount of ₱934,973.00

How much profit do I get from my 25 dairy cattle herd?

Dairying is a good business because once the cow gives birth to a calf, it starts to produce milk. An average of 10–12 kg of milk per cow daily is available for about 300 days. Daily revenue can be used to finance daily operational expenses. Male calves can be sold as early as possible and female calves become milking cows as early as 27—30 months. Income may also come from sale of bulls, culled cows and breedable heifers. However, dairy cattle management is a daily operation, requiring daily expenditures on feeds, labor, animal health care, utilities and other miscellaneous expenses for routine activities.

Considering all these, with the initial capital investment of P5.06 million, after financing, the average annual net income would be P644, 010.29, internal rate of return (IRR) 22%, while the net present value (NPV) is P923,617.15 at a discount rate of 15%. Initial capital investment will be recovered in 5.9 years.

