

Farm economics

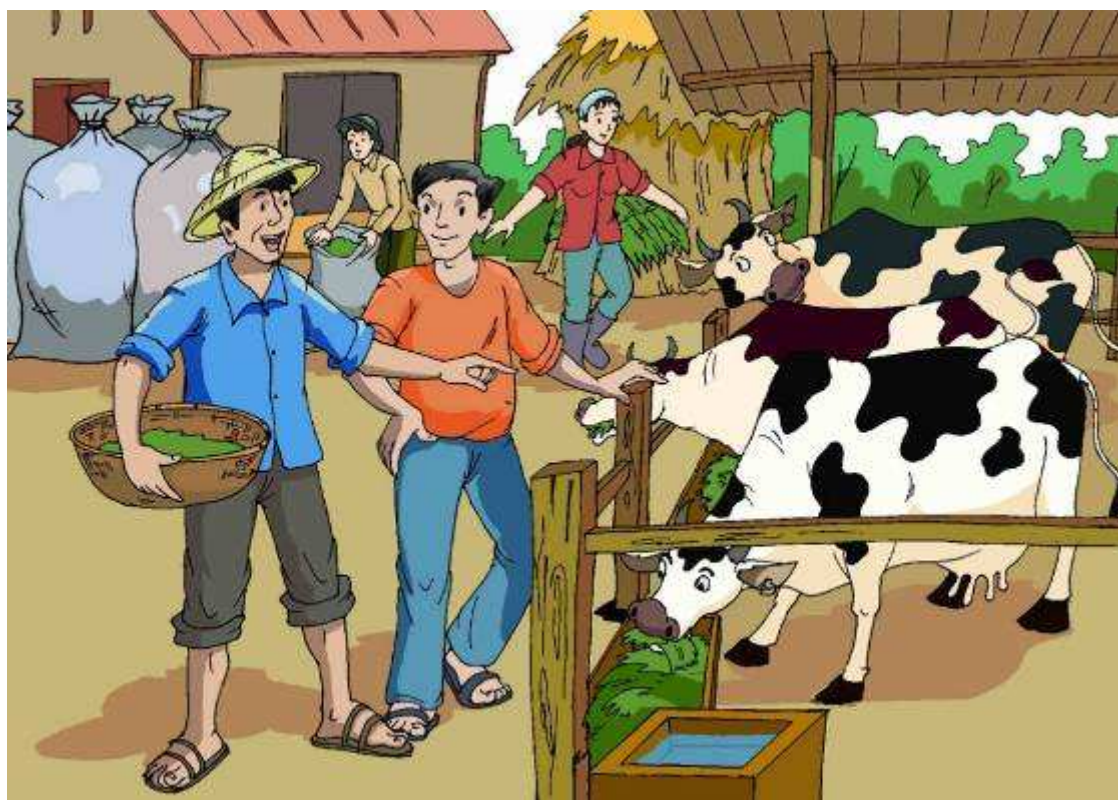
Dinh Xuan Tung

Tieu Duc Viet



VIETNAM BELGIUM DAIRY PROJECT

Economic Assessment of Dairy cattle farming in the VBDP project provinces



Introduction

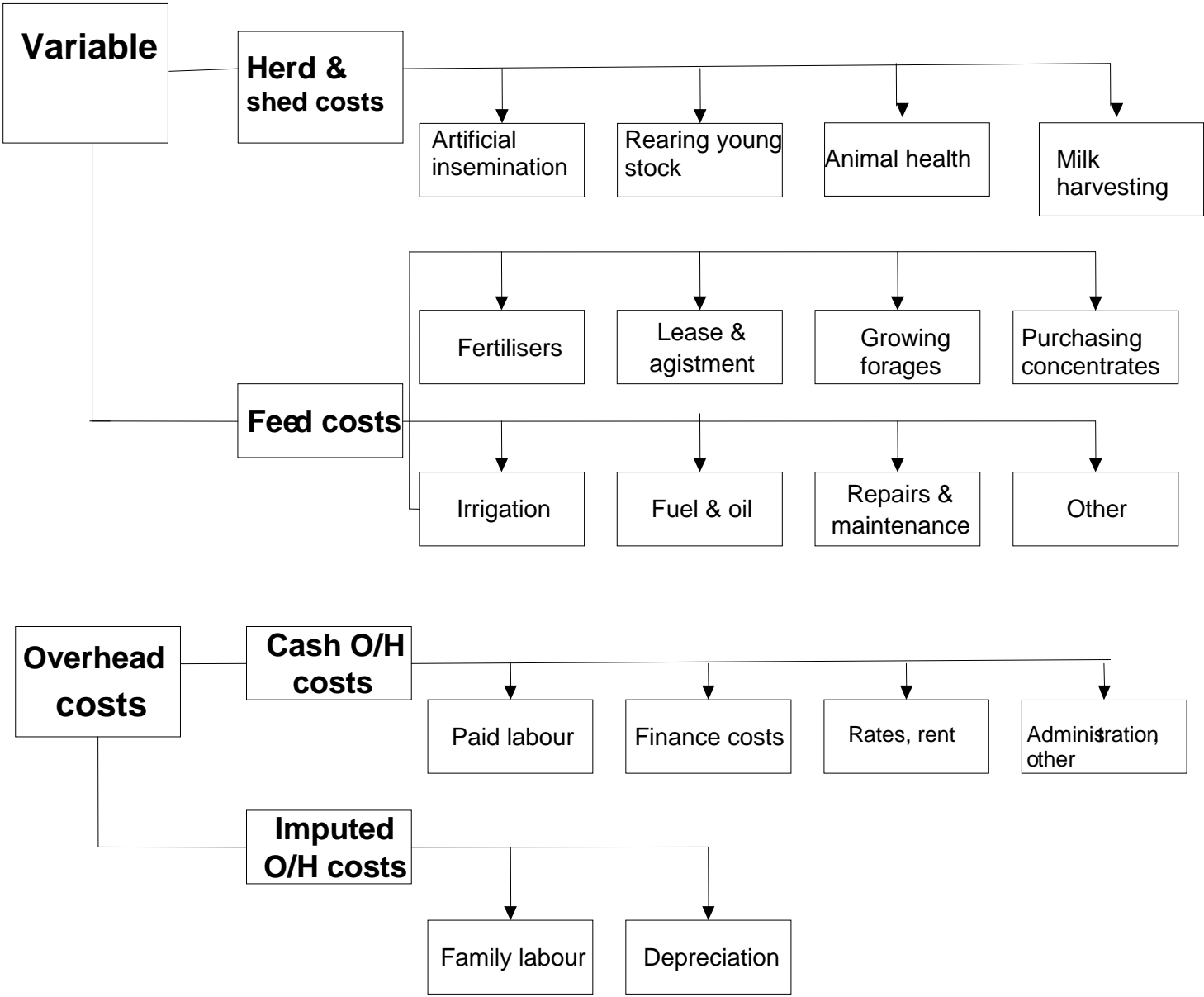
The main objective of this study is:

- to determine profitability of dairy cattle in the Red River Delta and
- to determine factors affecting production costs

Materials and Methods

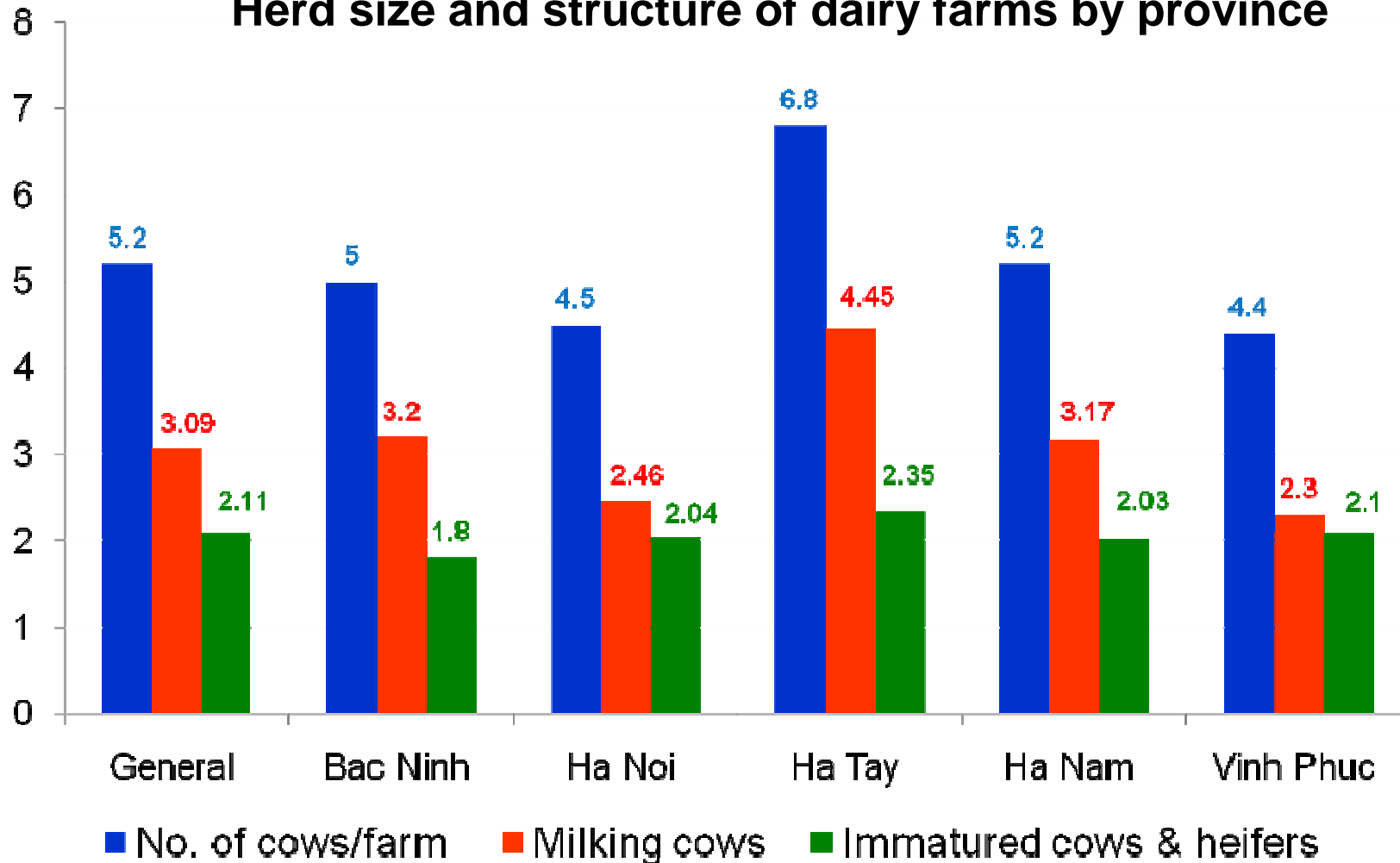
- Sampling: 45 small dairy farms in 5 provinces
- The data collected during 12 months by
 - Records by farmers
 - Interview with farmer
 - Records of milk sold to collecting point
- Data processing: Excel 2007

Diagram for expenditure in small dairy farm



Results and discussion

Herd size and structure of dairy farms by province



- The average numbers of cows/farm was 3.09 (Min. 1 and Max.9 cows)
- Milking cows made up 59.4% of the total herd

Dairy cow productivity

Indicator	General	Provinces				
		<i>Bac Ninh</i>	<i>Ha Noi</i>	<i>Ha Tay</i>	<i>Ha Nam</i>	<i>Vinh Phuc</i>
Milk yield per cow per lactation (kg)	3,958.9	3,064.8	4,465.2	3,717.2	4,769.4	3,527.7
Daily milk yield per cow (kg)	13.0	10.0	14.6	12.2	15.6	11.6

Table 6 (a): Cost and returns from dairy farms

COST		Mil.VND
Total costs		66.39
Variable costs/farm		42.26
1. Herd & Shed		7.3870
2. Feed costs		34.87
Fixed costs/farm		24.13
INCOME		Mil.VND
Gross prod. value per farm		97.09
1. From milk		87.80
2. From other		9.29
PROFIT & GROSS MARGIN		Mil. VND
Profit/farm		30.70
Gross margin/farm		48.68



Table 6 (b): Cost and returns per cow

COST	Mil. VND
Total costs per cow	21.49
Variable costs/cow	13.68
Fixed costs/cow	7.81
<u>INCOME</u>	
Gross prod. value per cow	31.42
Profit/cow	9.94
Gross margin/cow	15.75



The analysis of milk price, unit cost of production and unit net profit in 2008 by province

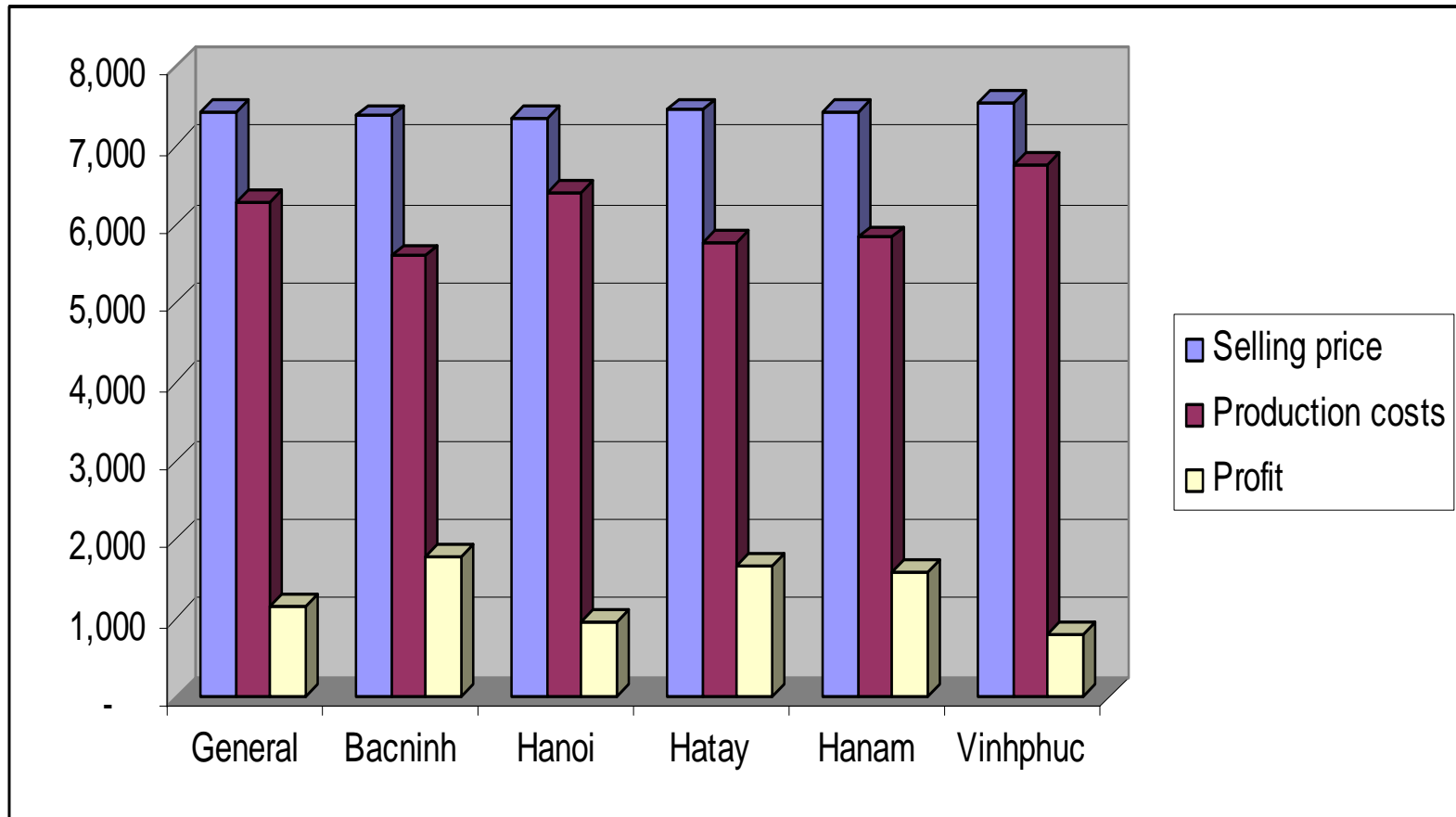


Table 7: Unit production costs and cost structure

Indicators	Vnd per 100 kg milk	Percentage (%)
I. Variable Cost	335,000	53.34
1. Herd & Shed	22,000	3.52
2. Feed costs	313,000	49.81
II. Fixed Cost	293,000	46.66
1. Labors costs	218,000	34.71
- <i>Family labor</i>	198,000	31.54
- <i>Hired labor</i>	20,000	3.17
2. Interests	15,000	2.45
3. Other	38,000	5.98
- <i>Land taxes</i>	14,000	2.22
- <i>Amini.costs</i>	24,000	3.75
4. Depreciation	22,000	3.53
Unit cost	629,000	100

can be reduced by using more high quality grasses

The feed costs is the greatest share of the total costs (49.81%), follow by labor costs (34.71%)

Figure 2: The cost structure of milk by provinces

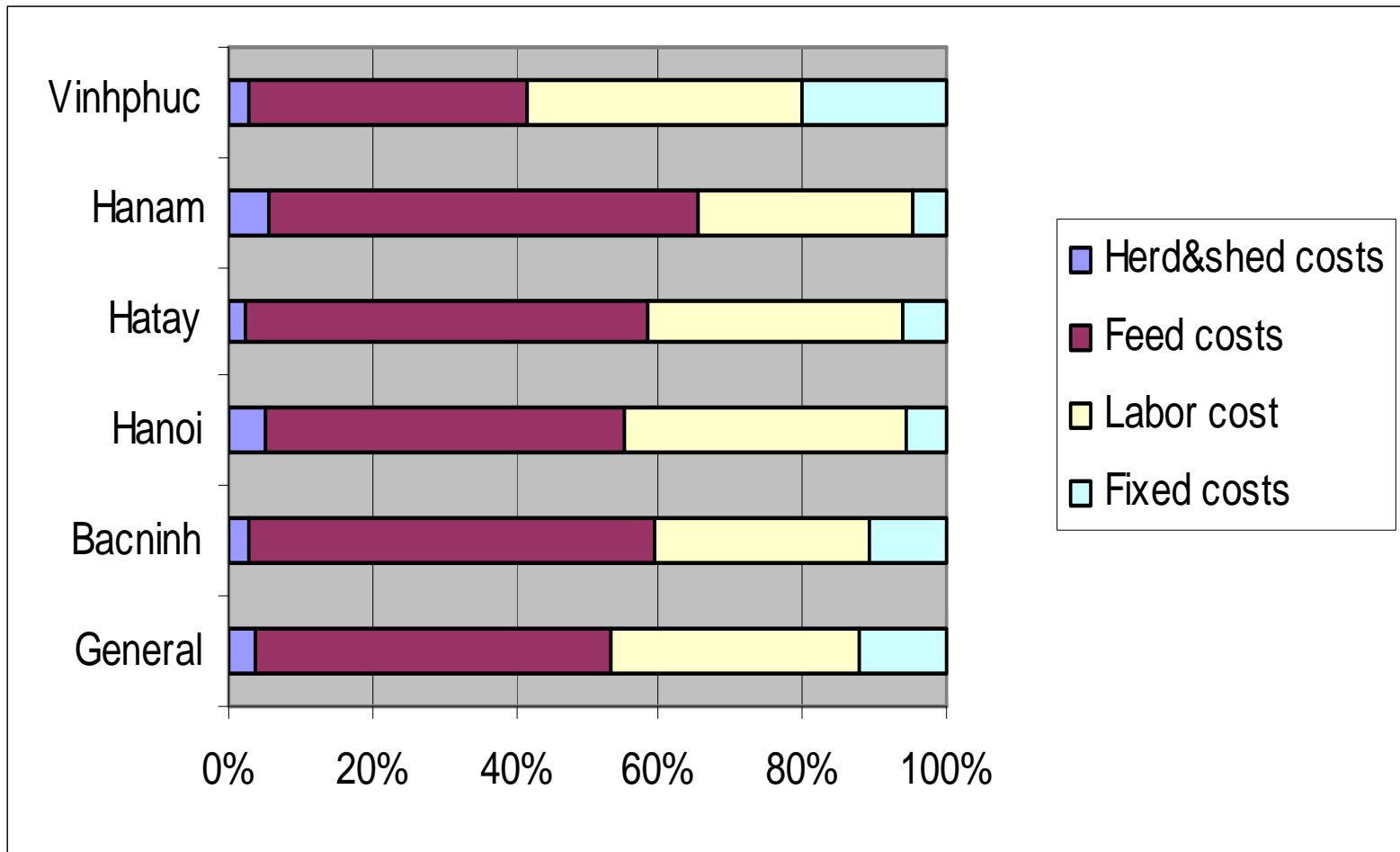


Table 8: Production costs/100 kg milk by herd size (vnd)

Indicator	1-2 cows	>2 cows
I. Variable costs	332,000	339,000
1. Herd and Shed	32,000	16,000
2. Feed costs	299,000	323,000
II. Fixed cost	354,000	245,000
1. Labors costs	282,000	181,000
- <i>Family labor</i>	278,000	145,000
- <i>Hired labor</i>	4,000	36,000
2. Interests	2,000	17,000
3. Other	38,000	31,000
- <i>Land taxes</i>	9,000	16,000
- <i>Admin. costs</i>	29,000	14,000
4. Depreciation	32,000	16,000
Unit cost	685,000	584,000

Table 9: Production costs/100 kg milk by milk yield (vnd)

Indicator	<4000 kg/lact.	>4000 kg/lact.
I. Variable costs	335,000	336,000
1. Herd and Shed	18,000	29,000
2. Feed costs	318,000	307,000
II. Fixed cost	347,000	221,000
1. Labors costs	253,000	173,000
- <i>Family labor</i>	221,000	170,000
- <i>Hired labor</i>	32,000	3,000
2. Interests	21,000	4,000
3. Other	45,000	30,000
- <i>Land taxes</i>	15,000	13,000
- <i>Admin. costs</i>	30,000	17,000
4. Depreciation	28,000	15,000
Unit cost	682,000	558,000

The feed costs was almost the same, but the labor costs was lower for the higher milk yield farms.

**Table 12: Cost structure
by unit production costs (%)**

Indicators	(<5.200 VND/kg	5.200<p<6.400 VND/kg	>= 6.400 VND/kg
Number of farms	15	14	16
I. Variable Costs	58,8	58,1	45,1
1.Herd & Shed	3,1	2,3	4,6
2. Feed costs	55,7	55,8	40,5
II. Fixed costs	41,2	41,8	54,8
1. Labors costs	29,9	31,2	40,9
- <i>Family labor</i>	24,3	27,0	39,3
- <i>Hired labor</i>	5,6	4,1	1,6
2. Interests	0,3	1,3	4,7
3. Other	7,4	6,5	5,0
4. Depreciation	3,5	2,8	4,0
Total	100	100	100

Conclusions

- The numbers of milking cows varying from 2.5 to 4.46.
- Cow milk yield ranged from 3064 - 4769 kg/lactation.
- The average production cost was 6290 VND per kg, lower than the 7500 VND per liter received by dairy farmers
- Although herd size of dairy farms was small, dairy farming is still a profitable activity → gross margin (included family labor & profit) per farm was 49.85 mVND and profit per farm 27.21 mVND.



Thank you for pay attention !