Appendix 3. Questionnaire for Indonesian dairy farmers

Farm Name: Location:
Owner Name & Age: Contact Details:
Interview Date: Farm Code:

1. GENERAL QUESTIONS

Code	Question	Answer
1a	What % of your farm income comes from dairy farming?	
1b	What other farming enterprises do you undertake?	
1c	What is the total area of your dairy enterprise (in ha)?	
1d	What is the total dairying area that you own, or are paying off (ha)?	
1e	How much area are you leasing (ha)?	
1f	What proportion of your farm do you use to produce fodder for your dairy enterprise?	
1g	How many years have you been dairy farming?	
1h	How many years have you been dairy farming on this particular farm?	
1i	When was the last time you constructed improvements to your dairy shed and other farm facilities?	
1j	How much of your forage production land do you irrigate?	
1k	How big is your dairy shed?	
11	What is the distance to your nearest milk collection centre?	
1m	Are you a member of your local farmers' group (dairy cooperative, milk supplier group)?	
	Plans for the future	
1n	Do you intend to produce milk next year?	
10	If so, do you plan to produce more milk than this year?	

1. GENERAL QUESTIONS (Continued)

Code	Question	Answer
1p	Do you expect a change in unit milk returns next year? Answer: 1, no change; 2, increase; 3, decrease	
1q	Do you expect a change in concentrate unit prices next year? 1, no change; 2, increase; 3, decrease	
1r	Next year, do you want to have more milking cows on your current forage production area?	
1s	Will you be dairy farming in 5 years' time?	
1t	Do your children want to follow you on the farm?	
1u	Is dairy farming expanding (1), static (2) or declining (3) in your area?	

2. FARM ASSETS & LIVESTOCK

Number and value of dairy livestock

	Number of dairy livestock	Value (Rp)	Number now	Number 12 months ago
2a	Milking cows (adult)			
2b	Dry cows (pregnant)			
2c	Dry cows NON pregnant			
2d	Heifers (weaning to point of calving)			
2e	Heifer calves			
2f	Bull calves			
2g	Other dairy stock (Bulls)			

Value of farm assets

Code	Question	Answer
2f	Value of buildings	
2g	Value of land owned (/ha)	
2h	Farm vehicle (and % used for farm business)	
2i	Effluent pump	
2j	Heat stress system (sprinklers, fans)	
2k	Motorbike	
21	Trailer	

Value of farm assets (Continued)

Code	Question	Answer
2m	Tractor	
2n	Milking machines	
20	Rubber mats	
2p	Milk cans and milk vat(s)	
2q	Grass chopper	
2r	Feed mixer (TMR)	
2s	Other dairy-related farm assets	
2t	Generator	
2u	Other	
2v	Other	

Farm loans

Code	Loan number	Initial value	Years to run	Annual interest	Annual repayment
2w					
2x					
2у					

3. FARM INCOME

Annual income (or estimated monthly income × 12)

Code	Question	Answer	
	Milk sales		
За	Yesterday's milk production (kg for the farm)		
3b	Average milk price (Rp/kg)		
3c	Annual milk return (Rp)		
	Livestock sales		
3d	Number of stock sold in last 12 months		
3e	Average value (Rp)		
3f	Annual return from stock sales (Rp)		
	Other dairy farm sales over last 12 months		
3g	Manure		
3h	Forages		
3i	Planting material		
3j	Other dairy-related sales		

4. VARIABLE COSTS: Herd and shed costs

Code	Question	Answer	
	Artificial insemination		
4a	Veterinarian visits		
4b	Drugs and other costs		
	Rearing young stock (calves and yearlings)		
4c	Fresh milk		
4d	Calf milk replacer		
4e	Concentrates		
4f	Forage		
	Health care		
4g	Vaccinations		
4h	Other drugs		
4i	Veterinarian visits		
4j	Other health care costs		
	Milk harvesting		
4k	Rubber ware		
41	Detergents and sanitisers		
4m	Repairs and maintenance of milking equipment		
4n	Transportation of milk to collection centre		
40	Towels		
4p	Other milk harvesting costs		

5. VARIABLE COSTS: Feed costs

Code	Question	Answer
	Concentrates	
5a	Factory concentrates (pellets or loose mix)	
5b	Protein meals	
	Other feed supplements	
5c	Mineral blocks	
5d	Mineral and vitamin premixes	
5e	Other feed supplements	
	By-products	
5f	Brewer's grain	
5g	Molasses	
5h	Other by-products (PKE)	
	Purchased forages	
5i	Rice straw	
5j	Native grass	
5k	Corn stover	
51	Other forages	
	Home-grown forages	
	1. High quality forages	
5m	Land preparation	
5n	Seed planting material	
50	Urea fertiliser	
5р	NPK fertiliser	
5q	Organic manure	
5r	Petrol for irrigation scheme water purchased	
	Processing and storage of forages	
5s	Urea treated rice straw	
5t	Making silage	
5u	Harvesting crops	
		(Continued)

5. VARIABLE COSTS: Feed costs (Continued)

Code	Question	Answer	
	2. Crops grown for dairy enterprise		
	Crop production costs		
5v	Land preparation		
5w	Seed planting material		
5x	Urea fertiliser		
5у	NPK fertiliser		
5z	Organic manure		
5aa	Petrol for irrigation		
	Processing and storage of forages		
5bb	Urea treatment		
5cc	Making silage		
5dd	Harvesting crops		
	Feed-related machine costs		
5ee	Petrol and oil for forage transport		
5ff	Electricity for forage chopper		
5gg	Repairs and maintenance of forage machinery		
	Non-feed or milk transport-related machine costs		
5hh	Other petrol and oil		
5ii	Other electricity		

6. OVERHEAD COSTS

Code	Question	Answer
6a	How many labour units do you employ?	
6b	What is their monthly salary (/mth)?	
6c	How many family members work on the dairy farm?	
6d	On average, how many hours do they work each week?	
	1. Cash overhead costs	
6e	Paid labour	

6. OVERHEAD COSTS (Continued)

Code	Question	Answer
6f	Finance cost on interest of loans	
6g	Tax on land owned by farmer	
6h	Land Rental	
6i	Payments to cooperative (Membership etc. if applicable)	
6j	Office administration	
6k	Miscellaneous cash overhead costs	
	2. Imputed overhead costs	
	Family labour	
61	Basic payment for family labour	
6m	Management	
6n	Administration	
	Depreciation of farm assets	
60	Shed	
6p	Biogas plant	
6q	Milking machine	
6r	Forage chopper	
6s	Effluent pump	
6t	Irrigation system (incl. pump)	
6u	Motorbike	
6v	Trailer	
6w	Small tractor	
6x	Heat stress system	
6y	Farm vehicle	
6z	Milk cans	
6aa	Grass chopper	
6bb	Feed mixer	
	Capital purchases	
6сс	Loan repayments	
6dd	Capital improvements	
6ee	Capital purchases	

7. OTHER FARM MANAGEMENT QUESTIONS

Code	Question	Answer					
	During this visit how many stock do you have:						
7a	Mature/heifer milking cows, currently milking						
7b	Mature/heifer milking cows, currently dry						
7c	Growing weaned heifers						
7d	Milk-fed calves						
7e	Bulls (growing and mature)						
7f	Other dairy or beef stock						
7g	Proportion of forage sourced off-farm						
7h	Do you use fresh milk (1) and/or calf milk replacer (2) for rearing the calves?						
	For fertilisers do you use:						
7i	Shed effluent						
7j	Inorganic fertilisers						
	Types of concentrates fed to milking cows:						
7k	Factory formulated concentrates						
71	Home mixed concentrates						
	Farm income generation						
7m	Number of cows in milk						
7n	Rolling herd average milk yield						
70	Average per cow production						
7p	Typical peak milk yield						
7q	Best peak milk yield						
7r	Rate of milk decline						
7s	Milk fat content						
7t	Milk protein (or SNF) content						
7u	Total milk solids content						
7v	Milk quality (TPC)						
7w	Typical milk price for good quality milk						
7x	Milk price for farm output over last 7 days						
		(Continued)					

7. OTHER FARM MANAGEMENT QUESTIONS (Continued)

Code	Question	Answer
7y	Typical calving interval (months)	
7z	Average number or DIM between calving	
7aa	Average number of dry days before calving	
7bb	Submission rate (number of days until first mating)	
7cc	Number of days post-calving to achieve conception (100 DIC)	
7dd	Typical conception rate for 1st insemination	
7ee	If using AI, number of services per conception	
7ff	Overall conception rate	
7gg	Typical age at 1st calving (mth)	
7hh	Typical losses of cows and calves before birth. Abortion rate.	
7ii	Typical morbidity rates (sickness) before weaning	
7kk	Typical mortality rates of calves before weaning	
711	Typical mortality rates post-weaning	
7mm	How long do you feed milk to the calves (weeks)?	

8. FEEDS SUPPLIED TO DAIRY HERD

List the daily feed types and quantities for the various animal groups

Lactating cows	Feed	Quantity (kg)	Rp/kg	Dry matter (%)	Metabolisable energy (MJ/kg DM)	Crude protein (%)

FEEDS SUPPLIED TO DAIRY HERD (Continued)

Dry cows	Feed	Quantity (kg)	Rp/kg	Dry matter (%)	Metabolisable energy (MJ/kg DM)	Crude protein (%)

Yearlings	Feed	Quantity (kg)	Rp/kg	Dry matter (%)	Metabolisable energy (MJ/kg DM)	Crude protein (%)

Calves	Feed	Quantity (kg)	Rp/kg	Dry matter (%)	Metabolisable energy (MJ/kg DM)	Crude protein (%)

9. OTHER QUESTIONS ABOUT GENERAL FARM MANAGEMENT

Is mastitis a problem and do you use Dry Cow Therapy at drying off?	
How many cows have mastitis today?	
Do you practise a routine vaccination program?	
Do you have a worm treatment program?	
Is there a special calving down area?	
Is there a water supply scheme on the farm?	
What % of cows are ruminating right now?	
Do the cows appear comfortable?	
Is lameness a problem?	
What is the farmer's age?	
Do you use a California Mastitis Test kit and how often?	
Does the farm maintain herd health and reproduction records?	
Does the farm maintain financial records?	

	What are the three biggest problems in the management of your dairy farm?
1	
2	
3	