



EU Framework 7 Co-ordination & Support Action
A MULTI-DISCIPLINARY APPROACH TO PRACTICAL & ACCEPTABLE
PRECISION LIVESTOCK FARMING FOR SMEs IN EUROPE & WORLD-WIDE

Traceability Studies

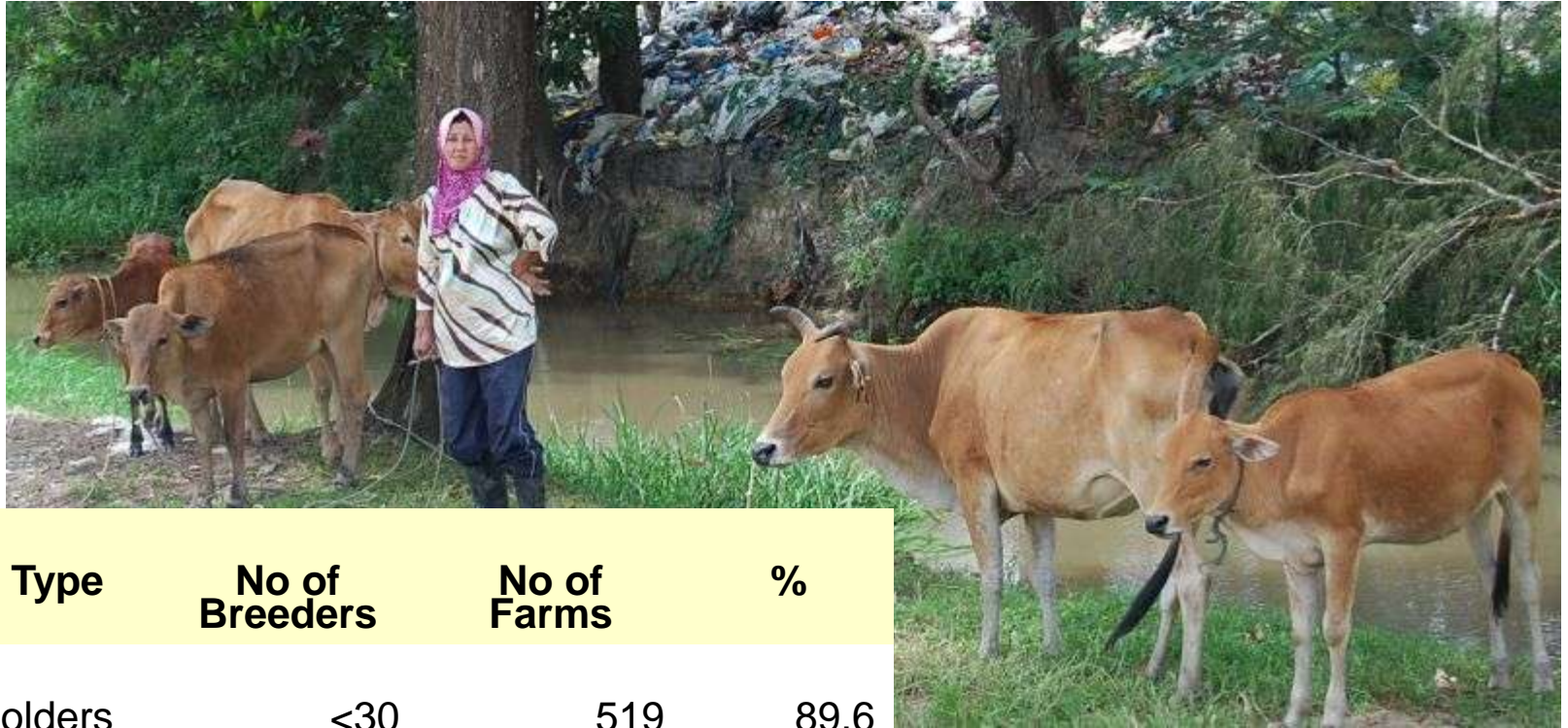
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Content

- Dairy Farming in Malaysia & some statistics
- DairyChamp and PLF
- Demonstrator and training farm
- Use of RFID
- How to encourage use of RFID



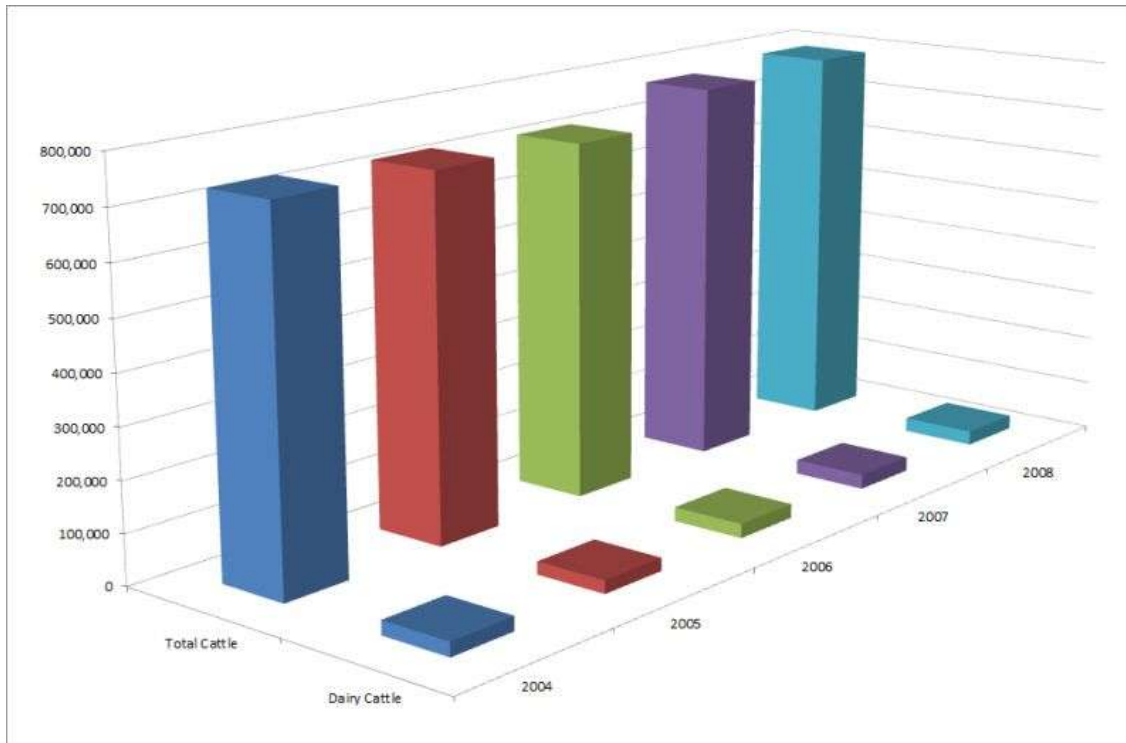
Dairy Farming in Malaysia



Farm Type	No of Breeders	No of Farms	%
Small holders	<30	519	89.6
Semi commercial	30-50	32	5.5
Commercial	>50	28	4.8

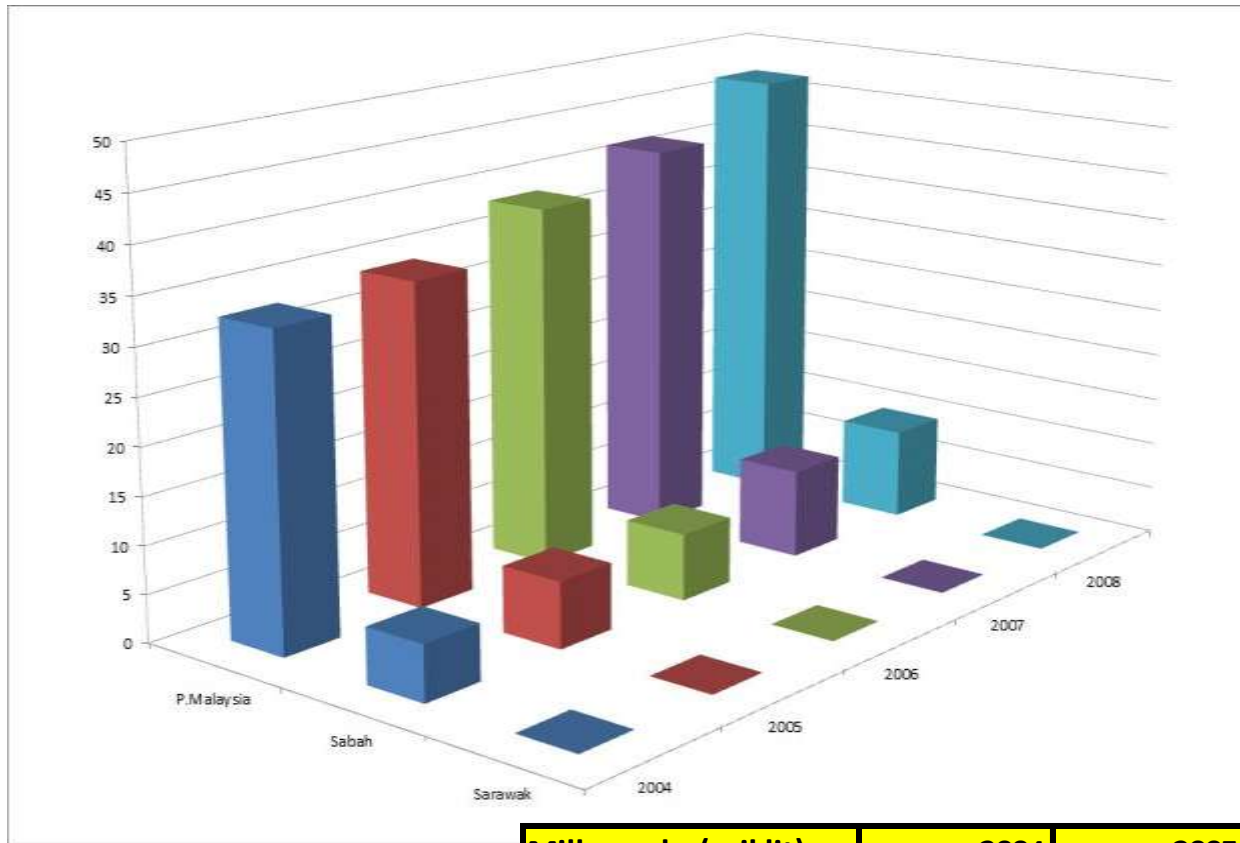
Dairy farming is mainly carried out by small-holders

Statistics – Dairy cattle population



Peninsular Malaysia	2004	2005	2006	2007	2008
Total Cattle	731,484	723,771	716,390	772,323	787,871
Dairy Cattle	28,499	25,843	28,302	28,779	28,545

Statistics – milk production



Milk prodn.(mil lit)	2004	2005	2006	2007	2008
P.Malaysia	32.85	34.06	38.35	41.66	46.85
Sabah	5.86	6.98	7.05	9.35	9.57
Sarawak	0.06	0.06	0.05	0.06	0.07
Total	38.77	41.1	45.45	51.07	56.49



Statistics – milk demand

Peninsular Malaysia	2004	2005	2006	2007	2008
Milk prodn.(mil lit)	32.85	34.06	38.35	41.66	46.85
Consumption (mil lit)	1,281.35	884.45	964.56	1,054.64	1,142.01
Self sufficiency (%)	2.56	3.85	3.98	3.95	4.1
Per capita (Kg)	62.9	42.52	45.5	48.59	51.77

DairyChamp and PLF

- DairyChamp was introduced to Govt. dairy farms
- Used for milk-collection centres as added service
- Based on animal ID on visual ear-tags
- Farmers write [date, ID, event] on report slips
- Worker enters data into PC at end of the day
- Daily print out of action-lists for herd management
- Performance reports from software



Dairy Cross breeds

- Mafriwal
- Malaysian Friesian Sahiwal



PLF Demonstrator and Training Farm

- Foreign trained herd manager installed RFID tagging system with software for individual cow management
- Movement detector to help detect heat
- Will be implementing automated feeding management when a new shed is commissioned 2011



Use of RFID

- Initial push for RFID tagging to identify properly quarantined imported cattle to control FMD

RFIDNews

Radio Frequency Identification Technology for Logistics, Tagging and EPC

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Monday, April 13, 2009

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Malaysia begins RFID-enabled livestock tracking program

Monday, April 6, 2009 in News

Malaysia has become the first Asian nation to introduce a government-run livestock tracking program based on RFID technology. In the first phase of the program 80,000 head of cattle across the country will receive RFID ear tags.

The program, which is funded by the Veterinary Department of Malaysia's Ministry of Agriculture and Agro-based industries, was instituted to control disease outbreaks among livestock, helping to identify the source of the outbreak and any animals which had been exposed to that source. Each tag will contain an identification code that provides access to data including the bearer's location, sex, name of breeder, origin of the livestock and dates of movement.

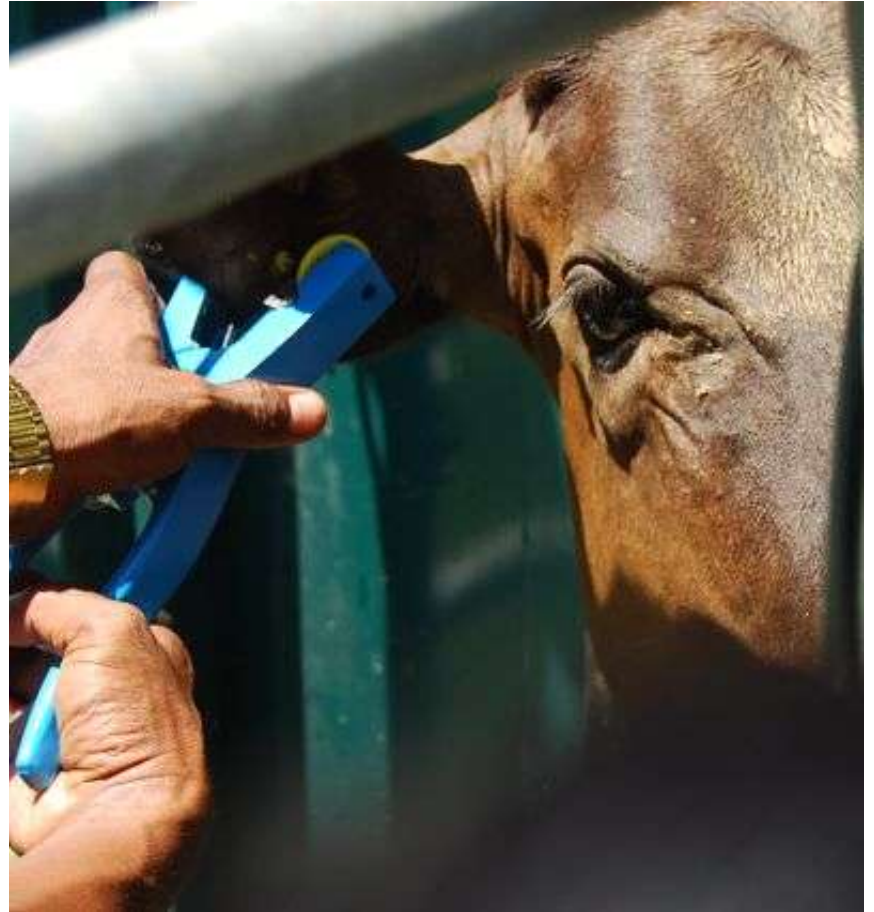
Government officials hope the tracking system will increase the competitiveness of Malaysia's livestock industry by helping it meet the import regulations of the United States and countries in Europe and the Middle East. The program will also help producers meet the dietary standards of the halal market.

If the initial phase of the program is successful, it will be expanded beyond cattle to include the tracking of other livestock animals such as goats. ■



Use of RFID

- Initial push for RFID tagging to identify properly quarantined imported cattle to control FMD
- Now used to identify cattle that obtain health certificates for Inter-State movements



RFID ear tagging of local cattle

Use of RFID

- Requirements for Inter-State movement permit
- Health certificate is required
- Livestock (ruminants) must be identified with tags
- RFID tags are encouraged

Total registered livestock		
State	Other tag	RFID tag
JOHOR	2,351	184
KEDAH	5,972	16,601
KELANTAN	1,562	48,785
MELAKA	1,874	46
NEGERI SEMBILAN	2,596	216
PAHANG	3,818	580
PULAU PINANG	494	185
PERAK	5,609	346
PERLIS	602	24,051
SELANGOR	3,525	1,062
TERENGGANU	1,077	60
SABAH	0	0
SARAWAK	0	0
PUTRAJAYA	0	0
WP KUALA LUMPUR	2	2
WP LABUAN	0	0
TOTAL	29,482	92,118

Data for 2009



How to encourage use of RFID

- Identification tags are mandatory requirement for animal movements
 - Traditional farmers whose livestock do not cross borders are not inconvenienced
 - Inter-state movements are associated to livestock sales, hence cost of RFID is relatively small
- Encouraging food processors and exporters on the competitive edge of having food traceability
 - Halal accreditation for the full Halal chain
 - Exports of Bird's Nests
 - Pork products for niche markets – residue free assurance





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