

**Beef Cattle and Goats
Production Biotechnology
IMT-GT Network**

**Bureau of Biotechnology in Livestock Production
Department of Livestock Development
Ministry of Agriculture and Cooperatives
Thailand**

Background and Rationale

- Similarities of tropical climate, way of living, food, environment and livelihood in IMT-GT area.
- Native cattle and goat breeds inherit good resistance to tropical parasites, diseases as well as tolerate to hot and humid climate of the tropic but yield lower meat and dairy production compared to the production of European breeds.
- European breeds will not tolerate tropical climate, parasites, diseases and environment.
- Crossbreds of native and European breeds of cattle and goats will increase production of meat and dairy produce as well as farmers' income.
- Availability of technologies and experiences.

Objective

1. Increase beef cattle, meat and dairy goat crossbreds production by Artificial insemination technique.
2. Produce superior genetic meat and dairy goat breeders (buck and doe) by Embryo Transfer technology.
3. Produce embryos and frozen semen from superior genetic meat and dairy goat breeders by Embryo Transfer and Cryopreservation technologies.
4. Provide training courses in artificial insemination for farmers and involved authorities in IMT-GT.

Activities

1. Artificial inseminate native cows with superior genetic semen to produce crossbred calves.
2. Artificial inseminate native does with superior genetic semen to produce crossbred kids.
3. Produce superior genetic meat and dairy goat breeders (bucks and does) by Embryo Transfer Technology.
4. Produce frozen semen and embryos from superior genetic meat and dairy goat breeders by Embryo Transfer and Cryopreservation Technologies.
5. Give training courses on artificial insemination in cattle and goats to farmers and involved authorities of IMT-GT.

Outcomes

1. Increase productivity of beef cattle, meat and dairy goat in southern Thailand and IMT-GT area.
2. Increase availability of good quality protein sources (meat and dairy) in southern Thailand and IMT-GT area.
3. Increase income of the farmers in southern Thailand and IMT-GT area.
4. Establishment of a Beef Cattle and Goat Production Biotechnology Center in Suratthani province.
5. Establishment of a Training center in cattle and goat production by Artificial Insemination and Embryo Transfer Technologies.

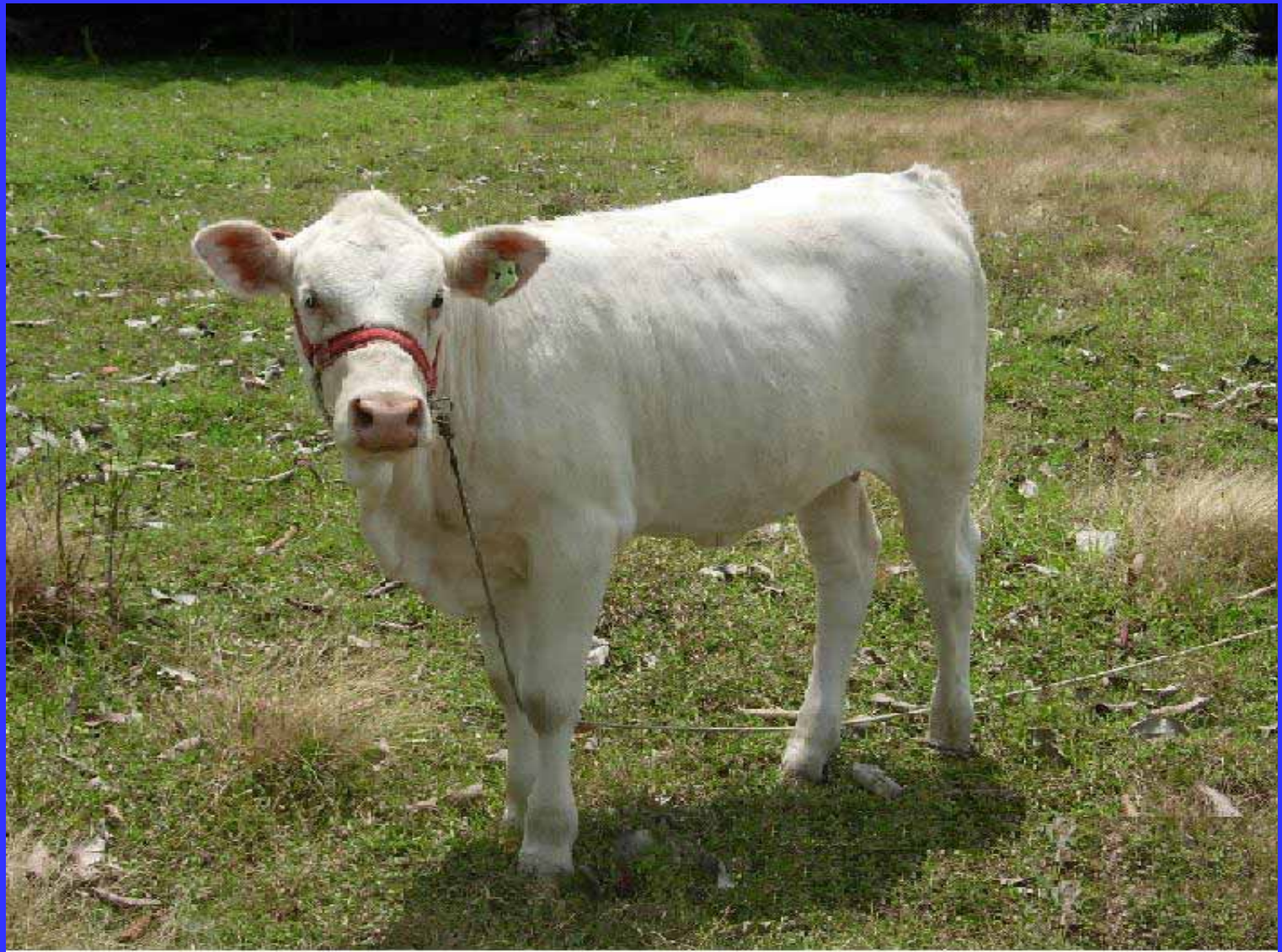
Thai native cattle





Crossbred calf

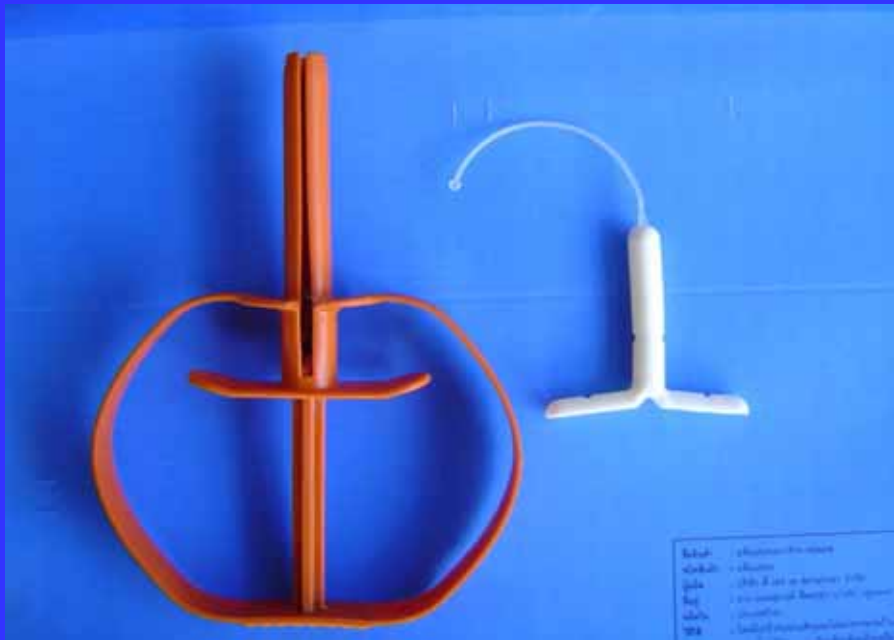




European goat breeds



Hormones for estrous synchronization and superovulation



Transcervical Artificial Insemination





Modified Laparoscopic Artificial Insemination



Ultrasonographic scanning for pregnancy check

Pregnancy Ultrasonographic Scanning





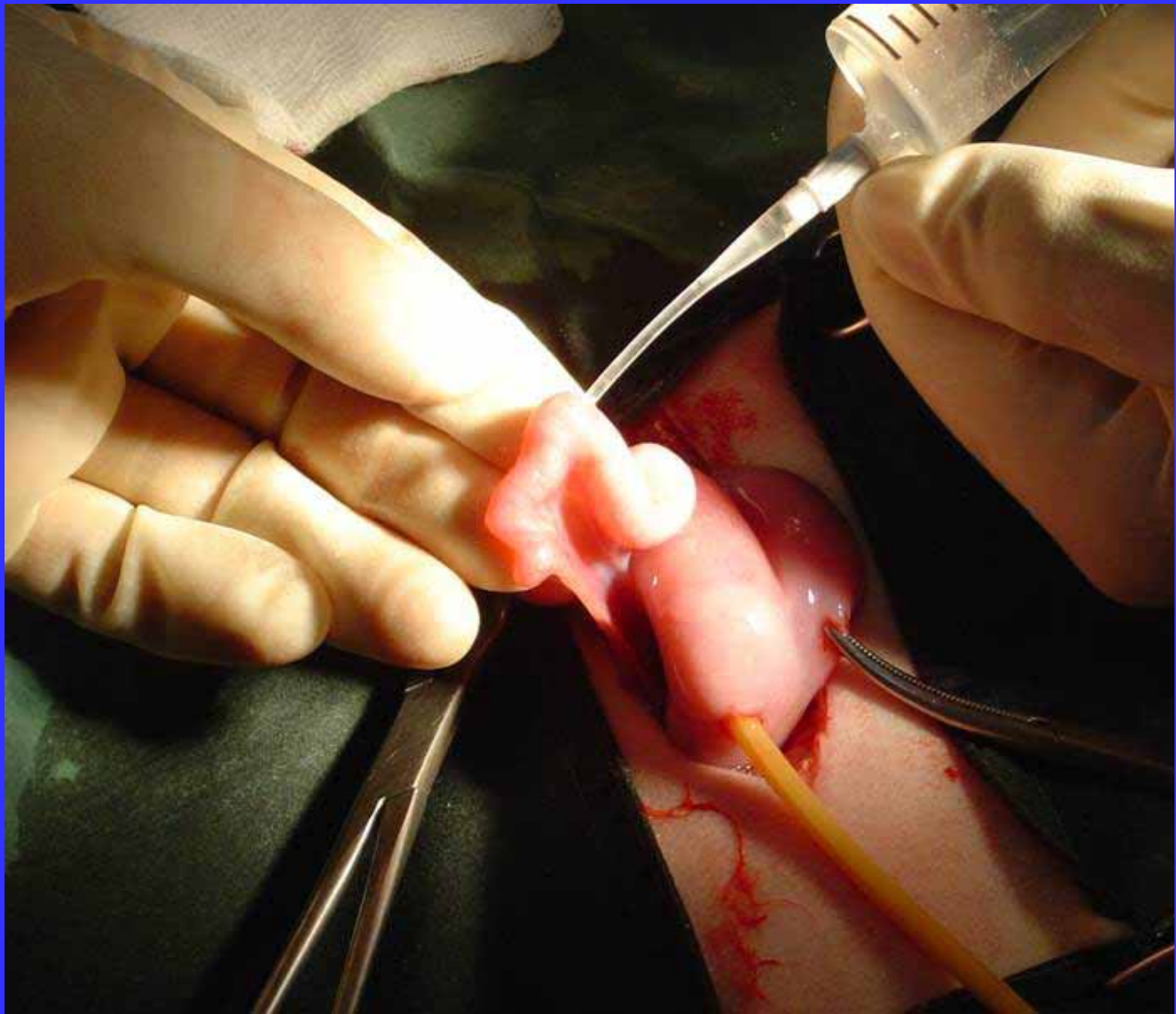
Crossbred kid



Embryo Transfer









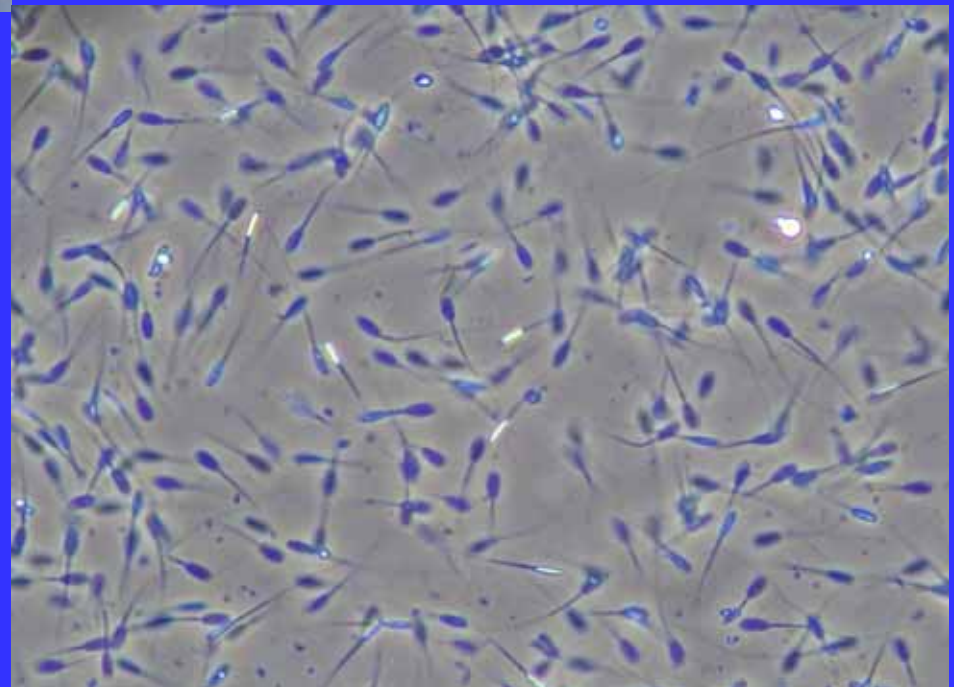






Buck frozen semen and embryo











A nighttime photograph of the Angkor Wat temple complex in Cambodia. The temple is illuminated with warm yellow lights, highlighting its intricate architecture and multiple tiers. The sky is a deep purple and pink, suggesting a sunset or sunrise. The text "Thank you" is overlaid in large, white, bold letters across the center of the image.

Thank you



Thank you

Month	Number of AI cows			Total
	CHA	BRA	ANS	
Oct 08	119	77	50	246
Nov 08	115	56	61	252
Dec 08	175	61	60	296
Jan 09	121	58	51	230
Feb 09	139	59	48	246
Mar 09	155	62	52	269
Apr 09	175	71	70	316
May 09	182	63	80	325
	1,181	507	472	2,160