

DOMESTIKASI DAN TERBENTUKNYA BANGSA-BANGSA TERNAK

DOMESTIKASI:

- Keadaan dimana breeding, pemeliharaan, pakan diatur oleh manusia

(Hale, 1969)

- Hewan piara yang mempunyai fungsi ekonomi untuk kepentingan manusia (Spurway, 1955)

**Domestication of an animal is defined as:
an animal selectively bred in captivity and thereby
modified from its wild ancestor,
for use by humans who control the animals breeding
and food supply.**

What traits were humans looking for in animals?

Pertimbangan melakukan domestikasi

Source of food,
milk products,
fertilizer,
land transport,
leather,
military assault vehicles,
plow traction,
and wool.

The big mammals provide most of these traits.

The 5 major mammals domesticated :

1. Sheep

From Asiatic Mouflon



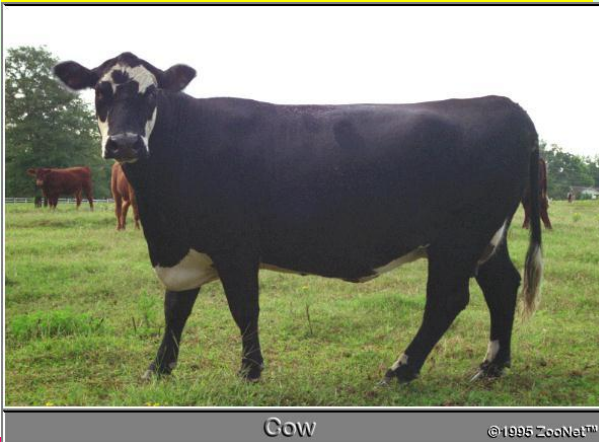
2. The Goat from the Bezoar goat



4. The Pig from the wild boar



3. The Cow from the now extinct Auroch



5. The of Russia,. Related to the Przewalski's horse



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Skema: Domestikasi, Status hewan berdasar pengaruh manusia

Hewan Liar:

Tak tergantung manusia

(-) Flight distance

Hw.Jinak

**PEMELIHARAAN
(KONTROL MANUSIA)**

Hw.Feral

DOMESTIKASI:

Ada ikatan dan kontrol manusia

TERNAK DOMESTIK

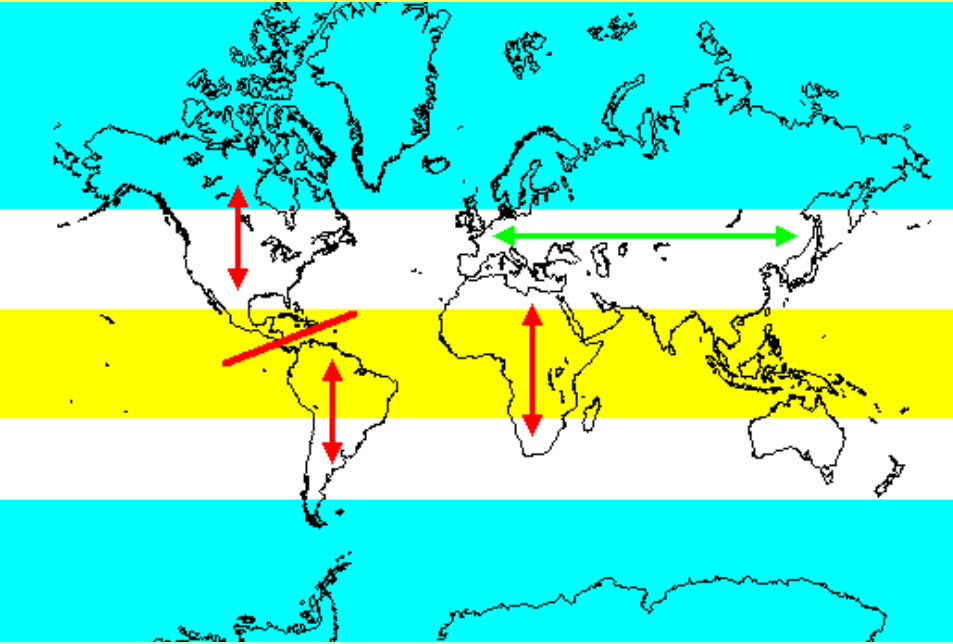
Dibudidayakan manusia

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Proses Domestikasi Hewan

- Genetic change that makes animal more amenable to human control
- Not the same as:
 - Taming
 - Training
 - Captive Breeding
- A lot more complicated than just capturing and taming animals

Lokasi: Why Eurasia?



- Only Land Mass with east-west axis
- Other barriers
 - Panama and Caribbean
 - Rain Forest (Africa)
 - Trypanosome Belt (Africa)
- Extinction of Megafaunas
 - Not adapted to humans and vice versa
 - Possible candidates for domestication wiped out?

1. Unsuitable for Domestication

- Ferocity (Zebras, Rhinos, Hippos)
- High Trophic Level (Carnivores)
- Picky Diet (Pandas, Koalas)
- Slow Growth (Elephants)
- Territoriality (Deer, Antelope)
 - Large Range
 - Solitary Habits
- Reclusive Breeding or Elaborate Courtship (Cheetahs)
- Tendency to Panic (Gazelles)

3. Self-Domestication

Humans create an environment

- Free of Predators
- Abundant food
- Salt

2. Suitable for Domestication

- Docile (or selectable for docility)
- Non-territorial
- Dominance Hierarchy (Humans co-opt leadership role)
- Uninhibited Breeding
- Rapid Growth a plus

Animal

Domestication

- 148 Species of Large Herbivores (>50 kg)
- Eurasia 13/72 (18%) Domesticated
- Sub-Saharan Africa 0/51 Domesticated
- Americas 1/24 (4%) Domesticated
- Australia 0/1 Domesticated

The Big Five

- Sheep
- Goat
- Cattle, Oxen
- Pig (Actually an Omnivore)
- Horse
- All are Eurasian

Efek Domestikasi:

menyebabkan perubahan pola kehidupan hewan liar, karena campur tangan manusia:

1. Pengawasan terhadap breeding: penggunaan IB, jumlah pejantan kurang
2. Perubahan kemampuan hidup yang meningkat, karena ternak sakit/lemah dikontrol oleh manusia
3. Nutrisi ternak, manipulasi kualitas/kuantitas pakan
4. Seleksi dan genetika, karena adanya variasi dalam spesies hewan liar
5. Pengurangan dalam pemilikan kebebasan

DASAR TERBENTUKNYA BANGSA-BANGSA TERNAK

Robert Backwell: (Bapak pemuliaan Ternak)

Mengatur perkawinan kuda sapi domba dll, cara:

Objective tertentu: tipe orientasi product, seleksi sifat ternak potong

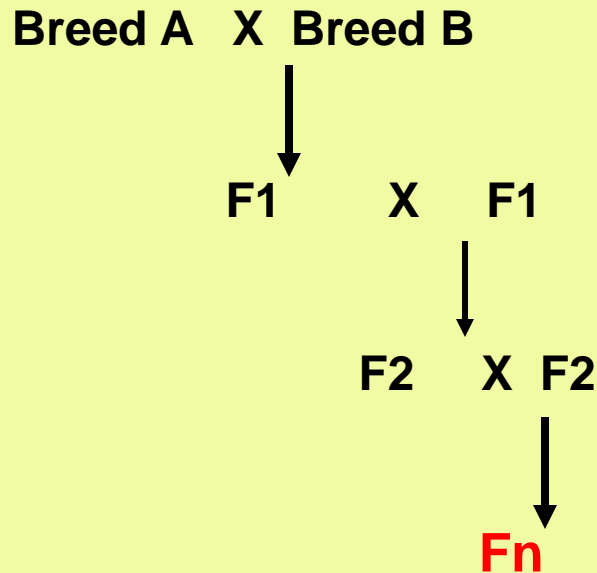
Menyewakan pejantan: **progeny test**

Mengawinkan pejantan dan betina terbaik saja, berkerabat: **inbreeding dan out breeding** (**selanjutnya** lihat materi kuiah terkait sistem perkawinan

Contoh Aplikasi PROGRAM BREEDING UNTUK KREASI *BREED* BARU (lanjut ke Kuliah Materi Sistem Breeding)

I. Tujuan Genetik:

a. Menghasilkan Breed Baru



Fn : Disebut breed baru:

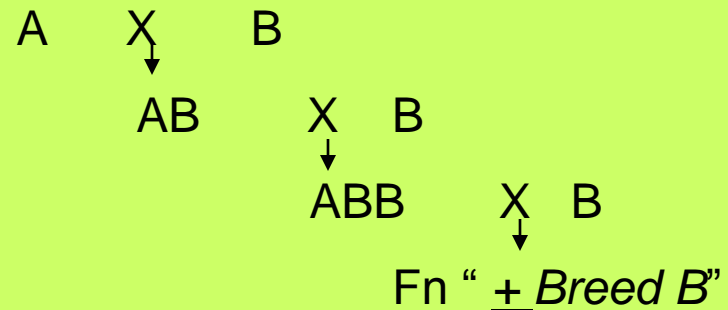
- Ciri spesifik baru
- Tingkat homoginitas tertentu

b. Perbaikan Genetik

Introduksi gen unggul pejantan pada betina



c. Gradding Up:



Waktu: perlu 4 – 5 Generasi: + 93.75-96.85 %.

Sapi : 25 – 30 thn; Kb/Db; 20 thn Babi: 10 th.