

Animal Conservation

PIG

Taoyuan Pig

Lanyu Small-Ear Miniature Pig. (TBAPS)

Lanyu Small-Ear Miniature Pig. (NTU)

Lee-Sung Strain Pig

CATTLE

Water Buffalo (swamp type)

Yellow Cattle



GOAT

Black Goat (HRS)

Black Goat (HBAPS)

DUCK

Black Muscovy Duck

Common Duck - White Tsaiya

Common Duck - Brown Tsaiya

GOOSE

Brown Chinese Goose

White Chinese Goose

Taoyuan Pig



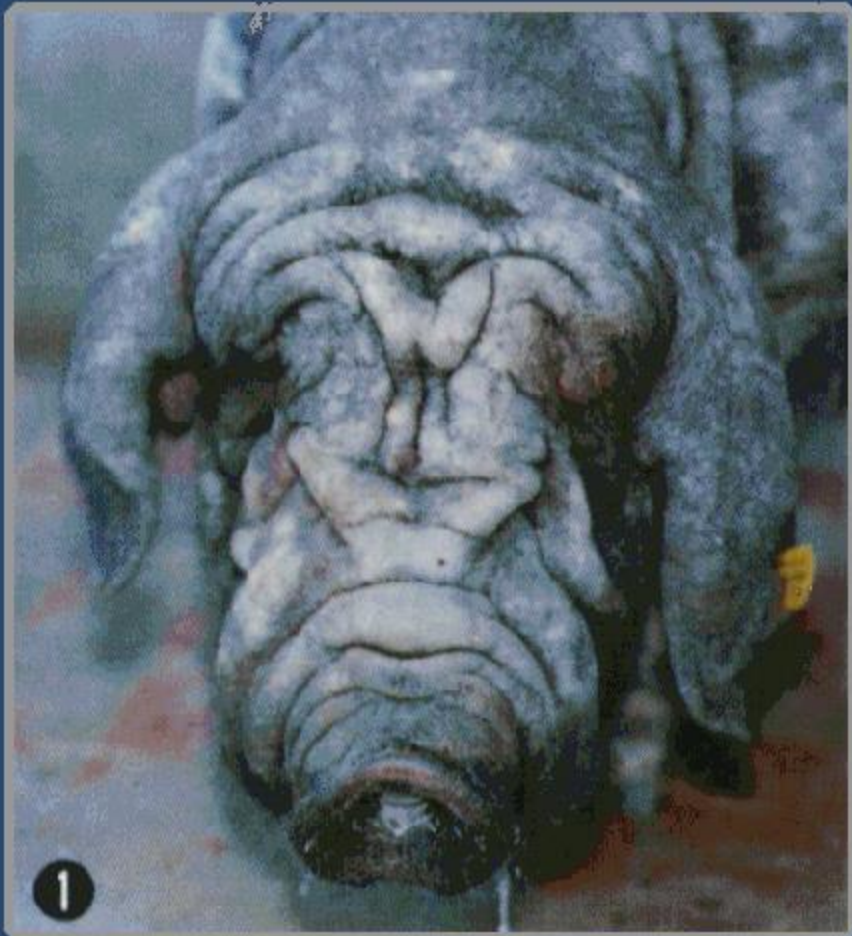
Boar

Taoyuan Pig



Sow

Taoyuan Pig



Broad, flat face.
Large, floppy ears.
Large nostrils.

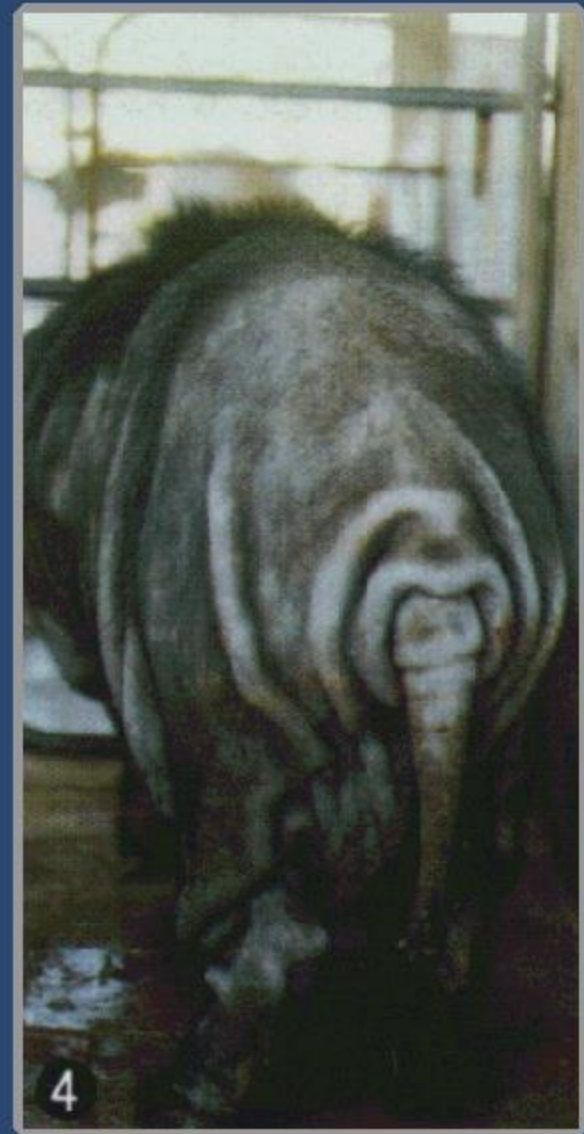


Marked wrinkles over entire body
with short neck.

Taoyuan Pig



Less marked wrinkles at peripubertal period with hanging belly.



Tail hangs straight down

Taoyuan Pig



Stiff bristles on back and hairless over the side of body.



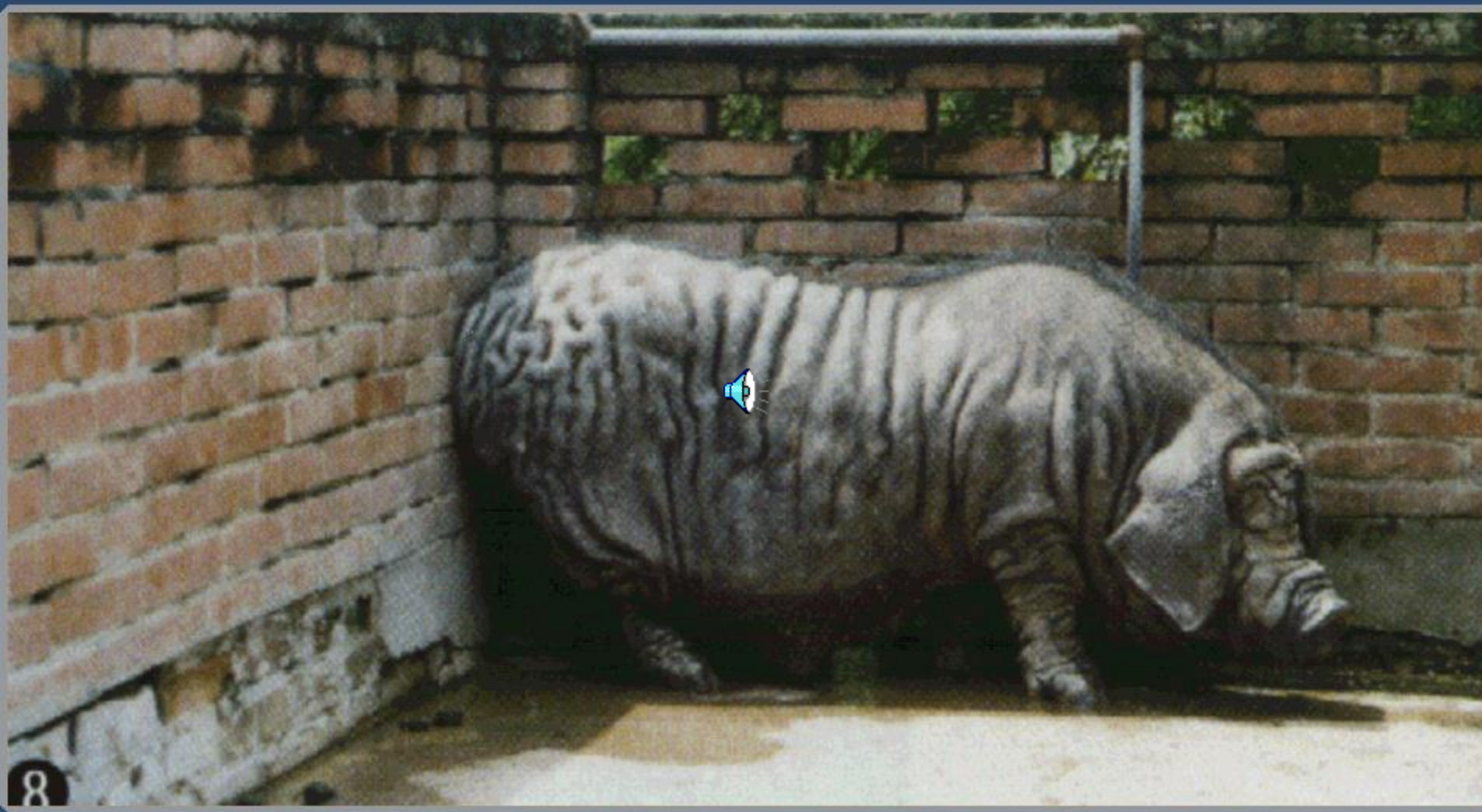
Cloven hoof in contact with ground.

Taoyuan Pig



Thick folded skins in boar

Taoyuan Pig



Marked wrinkles in sow after farrowing and nursing.

Taoyuan Pig



Medium size compared to occidental breeds.

Taoyuan Pig



Broad forehead with deep horizontal and vertical wrinkles.

Taoyuan Pig



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Mature early and gregarious

Taoyuan Pig



Prolific and docile.

Taoyuan Pig

Growth Performance

Mean + SE

| | |
|--------------------------------------|---------------------|
| Birth weight | 0.8±0.2 Kg |
| Body weight at 3-week of age | 3.0±0.6 Kg |
| Body weight at 8-week of age | 10.1±2.2 Kg |
| Body weight at 6-month of age | 48.0±10.9 kg |
| Body weight at 1-year of age | 94.6±14.5 Kg |
| Survival rate at 3-week of age | 84% |
| Survival rate at 8-week of age | 79% |
| backfat thickness at 90 Kg alive wt. | 4.19±0.12 cm |
| Feed conversion from 30 to 90 Kg BW | 4.59±0.18 Feed/Gain |
| Dressing percentage | 81% |
| Lean percentage | 40% |

Taoyuan Pig

Reproductive Performance

| | |
|---|----------------|
| Gestation length | 116±1 days |
| Number of teats at left | 5.9±0.7 teats |
| Number of teats at right | 6.0±0.6 teats |
| Frequency for pigs with ≥ 12 teats | 19.2 % |
| Litter size at birth | 11.3±2.8 heads |
| Sex ratio at birth(male : female) | 1.13 : 1.00 |
| Litter size born alive | 8.6±2.9 heads |
| Litter size at 3-week of age | 7.2±2.7 heads |
| Litter size at 8-week of age | 6.8±2.6 heads |

Taoyuan Pig

CONFORMATION

MEASUREMENTS

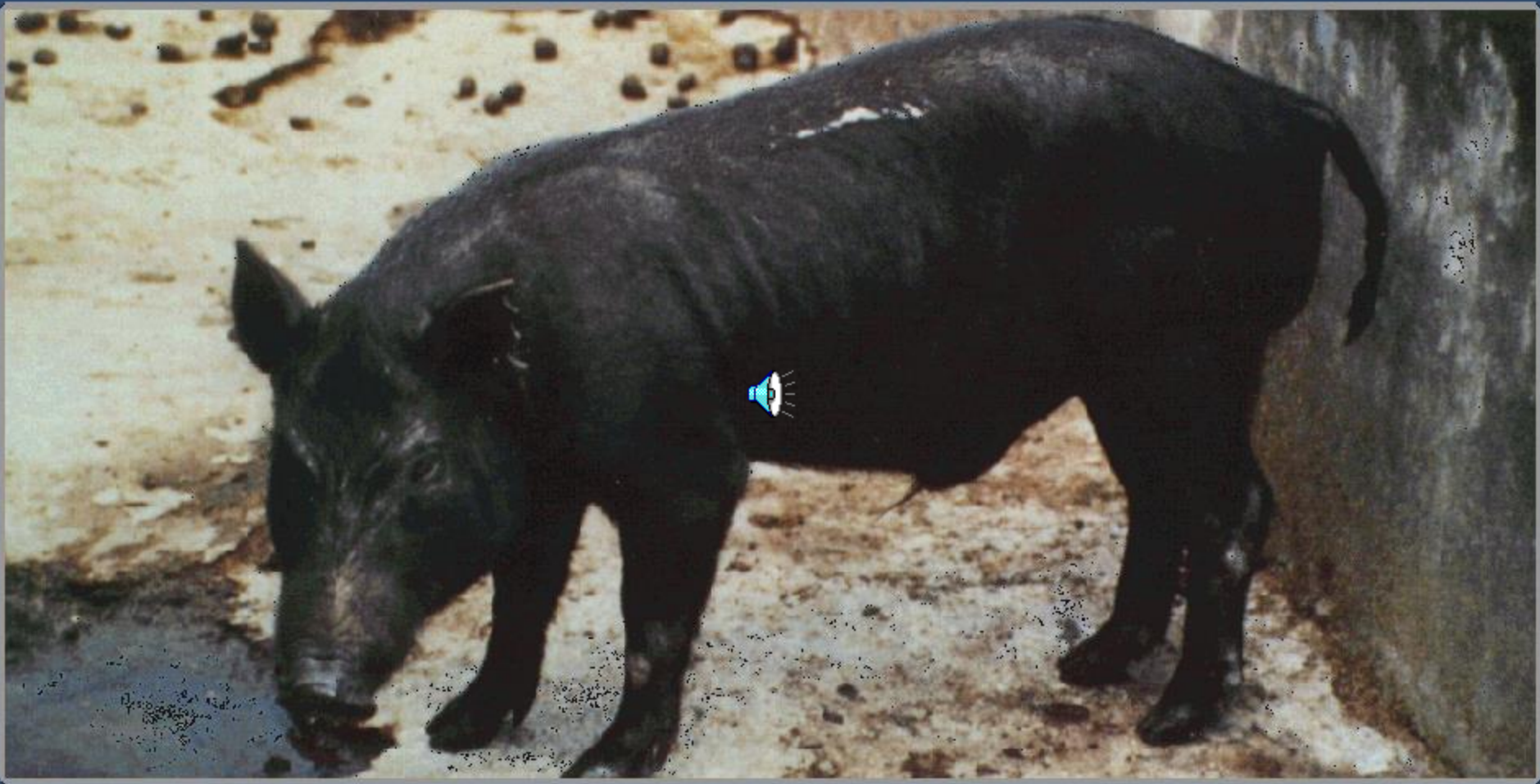
| | |
|---|--------------------|
| Body length(the distance from the middle point between two earheads to tailhead) | 113.3 ± 7.8 cm |
| Withers height(the distance from shoulder-blades to ground) | 58.0 ± 3.7 cm |
| Chest girth(the circumference of chest which measured over back shoulder and foreflank) | 103.3 ± 6.6 cm |
| Rump width (the widest area over the rump) | 28.1 ± 2.2 cm |
| Number of ribs | 13 or 14 pairs |

Taoyuan Pig

Origin and Location

The Taoyuan pig is named due to a famous breed at the Taoyuan area and is a local breed of Taiwan. Pigs are mainly distributed in northwestern area of Taiwan.

Lanyu Small-Ear Miniature Pig



Boar

Lanyu Small-Ear Miniature Pig



Sow

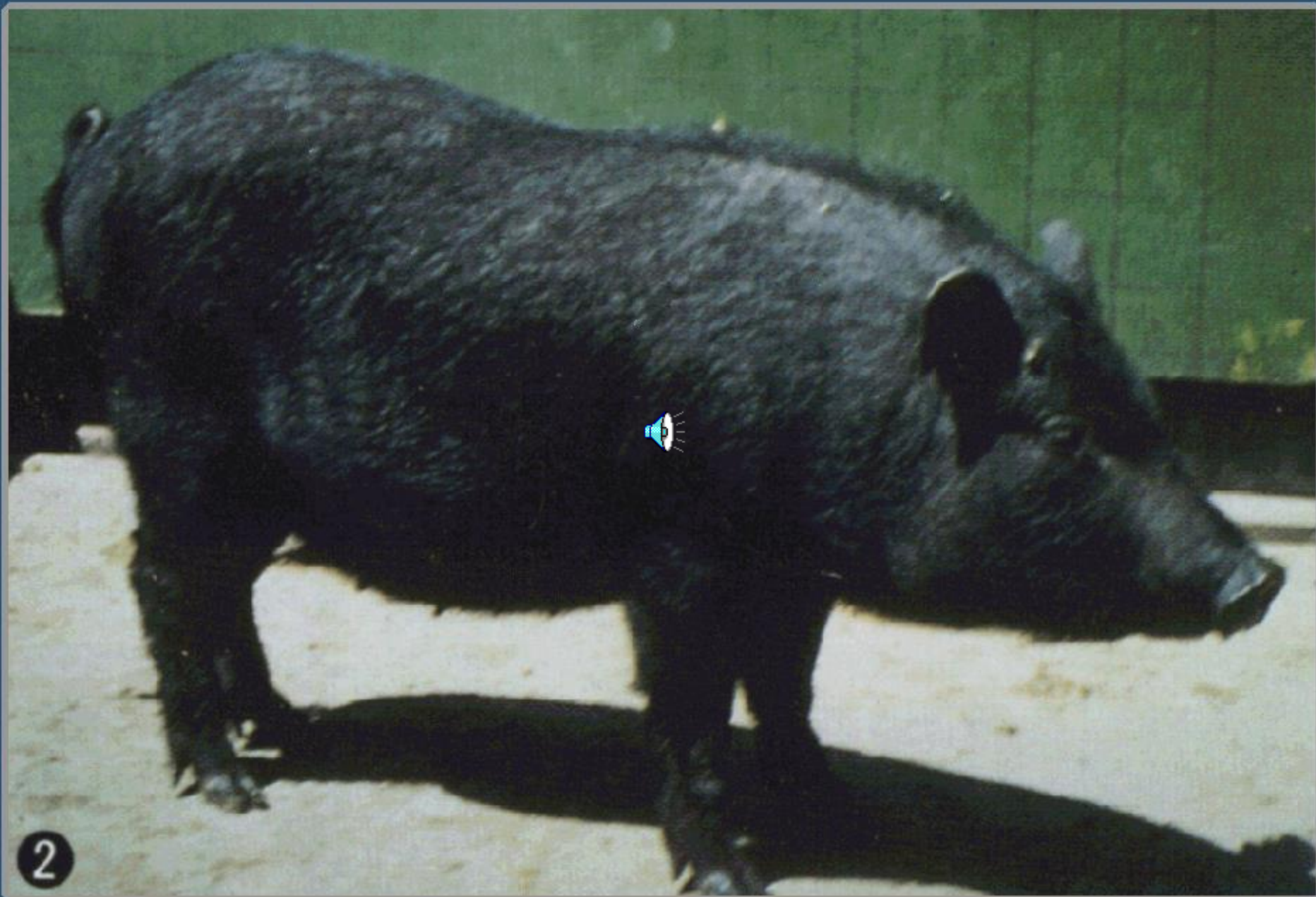
Lanyu Small-Ear Miniature Pig



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Small Sticking-up ears

Lanyu Small-Ear Miniature Pig



Long face few wrinkles

Lanyu Small-Ear Miniature Pig



Solid black coat color with glossy skin and short hair

Lanyu Small-Ear Miniature Pig



Small in size and tail hangs down.

Lanyu Small-Ear Miniature Pig

Growth Performance

Mean + SD

| | |
|--------------------------------------|-----------------------|
| Birth weight | 0.67 ± 0.13 Kg |
| Body weight at 4-week of age | 3.23 ± 0.75 Kg |
| Body weight at 8-week of age | 5.49 ± 1.85 Kg |
| Body weight at 6-month of age | 19.38 ± 7.74 Kg |
| Body weight at 1-year of age | 45.62 ± 10.45 Kg |
| Survival rate at 3-week of age | 85% |
| Survival rate at 8-week of age | 80% |
| backfat thickness at 50 Kg alive wt. | - cm |
| Feed conversion from 10 to 50 Kg BW | 3.18 ± 0.15 Feed/Gain |
| Dressing percentage | - % |
| Lean percentage | - % |

Lanyu Small-Ear Miniature Pig

Reproductive

Performance

| | |
|---|-------------------|
| Gestation length | 114±3 days |
| Number of teats at left | 5.8±0.2 teats |
| Number of teats at right | 5.9±0.2 teats |
| Frequency for pigs with ≥ 12 teats | — % |
| Litter size at birth | 8.10 ± 2.87 heads |
| Sex ratio at birth(male : female) | 1.25 : 1.00 |
| Litter size born alive | 7.09 ± 2.74 heads |
| Litter size at 3-week of age | 6.03 ± 2.73 heads |
| Litter size at 8-week of age | 5.70 ± 2.31 heads |

Lanyu Small-Ear Miniature Pig

CONFORMATION

MEASUREMENTS

| | |
|---|---|
| Body length(the distance from the middle point between two earheads to tailhead) | 84.1 ± 3.99 cm |
| Withers height(the distance from shoulder-blades to ground) | 50.5 ± 2.48 cm |
| Head length(the distance from the middle point between two earheads to tips of nose) | 27.9 ± 1.60 cm |
| Head width(the widest area over the top of eyes) | 10.9 ± 0.51 cm |
| Number of ribs | 14 pairs(10th to 14th ribs free to the sternum) |

Lanyu Small-Ear Miniature Pig

Karyotyping

Number of chromosomes : 19 pairs (18+XY, 18+XX)

1 – 7 : Submetacentric chromosome

8 – 12 : Metacentric chromosome

13 – 18 : Telocentric chromosome

X : Meta - submetacentric chromosome

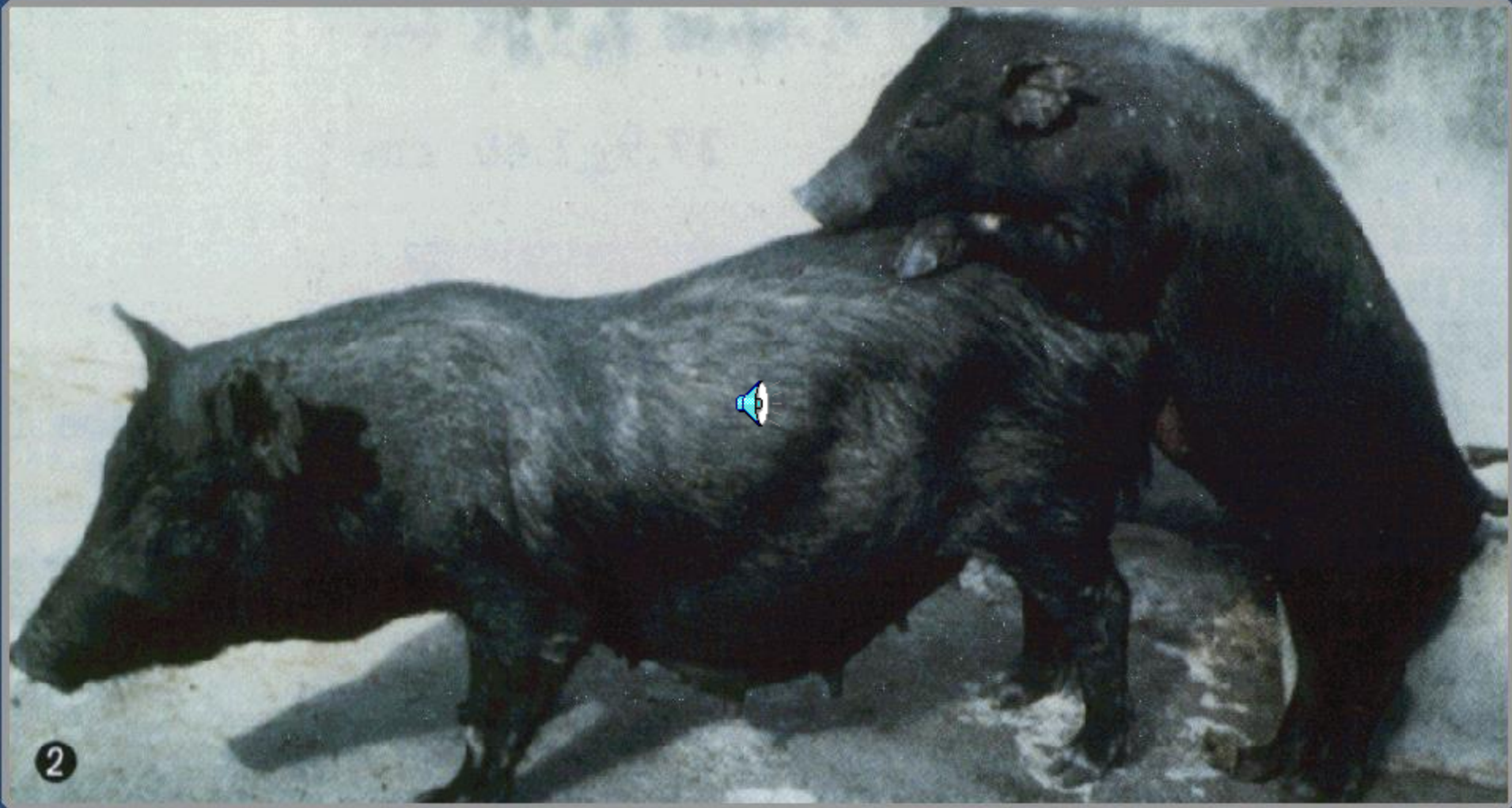
Y : Metacentric chromosome

Lanyu Small-Ear Miniature Pig



Can be raised in the rocky area and females build nests in holes after giving birth.

Lanyu Small-Ear Miniature Pig



Early mature and both sexes show mating behavior.

Lanyu Small-Ear Miniature Pig



Less prolific but good nursing ability

Lanyu Small-Ear Miniature Pig



Roughage tolerance.

Active and alert.

Lanyu Small - Ear Miniature Pig



Boar

Lanyu Small - Ear Miniature Pig



Sow

Lanyu Small - Ear Miniature Pig



Pigs are solid black and piglets with glossy skin

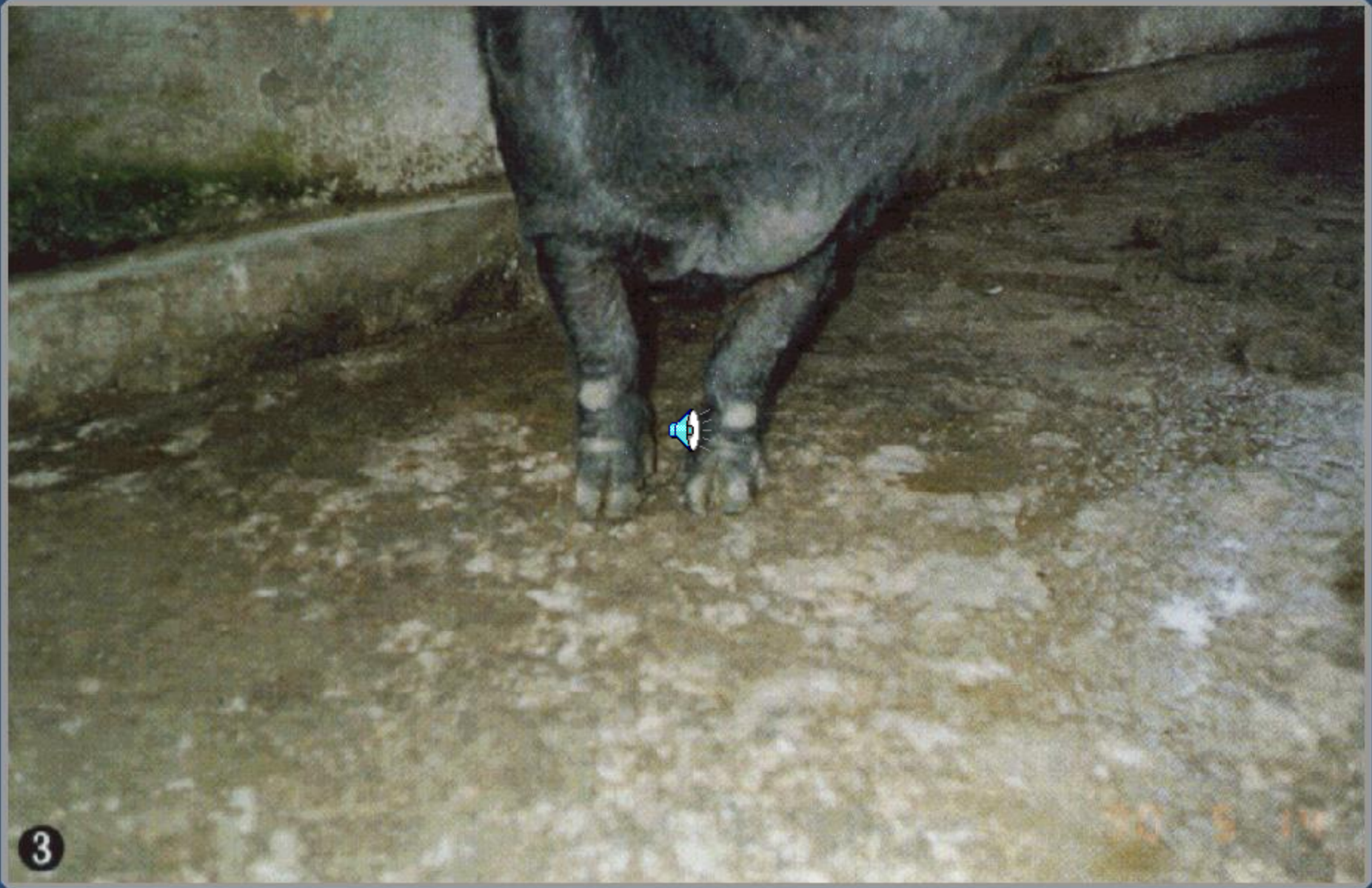
Lanyu Small - Ear Miniature Pig



Face are slightly concave and long.

Ears are small and erect.

Lanyu Small - Ear Miniature Pig



Legs are very short and thick with strong pasterns.

Lanyu Small - Ear Miniature Pig



Small body size

Less prolific

Good maternal behavior

Lanyu Small - Ear Miniature Pig



Piglets are alert and boars have attack behaviour under stress.

Lanyu Small - Ear Miniature Pig



Sows with hanging belly and curving back.

Lanyu Small - Ear Miniature Pig



Mature boars and sows all with stiff bristles.

Lanyu Small - Ear Miniature Pig

Growth Performance

| | |
|--------------------------------|--------------------|
| Birth weight | 0.77 ± 0.08 Kg |
| Body weight at 3-week of age | 1.95 ± 0.64 Kg |
| Survival rate at 3-week of age | 76.7 ± 11.5 % |



Lanyu Small - Ear Miniature Pig

Reproductive Performance

| | |
|--------------------------------|---------------------|
| Litter size at birth | 6.0 \pm 1.3 heads |
| Litter size at 3-week of age | 4.3 \pm 1.8 heads |
| Litter weight at birth | 5.4 Kg |
| Litter weight at 3-week of age | 3.9 Kg |

Lee - Sung Strain Pig



Boar

Lee - Sung Strain Pig



Sow

Lee - Sung Strain Pig



Adults dociles. This strain was originated from Lanyu Small - Far miniature pig and occidental Landrace pig

Lee - Sung Strain Pig



Two - types of coat color : solid black, and white with black spots. Most have black spots on bridge of snout with erect ears.

Lee - Sung Strain Pig



More prolific than Lanyu Small - Ear miniature pig.
Good maternal behavior.

Lee - Sung Strain Pig



Piglets extremely jittery.

Lee - Sung Strain Pig



**Stiff bristles on back.
Boars have wider rump than sows do.**

Lanyu Small-Ear Miniature Pig

Growth Performance

Birth weight

Body weight at 1-week of age

Body weight at 2-week of age

Body weight at 3-week of age

Body weight at 4-week of age

Body weight at 8-week of age

Body weight at 12-week of age

Body weight at 16-week of age

Survival rate at 3-week of age

Survival rate at 8-week of age

Survival rate at 12-week of age

Survival rate at 16-week of age

Backfat thickness at 90 Kg alive wt.

Feed conversion from 30 to 90 Kg BW

Dressing percentage

Lean percentage

Mean + SD

0.64 ± 0.17 Kg

1.34 ± 0.34 Kg

2.07 ± 0.65 Kg

3.16 ± 0.75 Kg

4.26 ± 0.79 Kg

7.99 ± 2.82 Kg

14.31 ± 3.10 Kg

23.60 ± 5.14 Kg

73.0 ± 23.0 %

68.5 ± 24.4 %

68.5 ± 24.4 %

68.5 ± 24.4 %

- cm


- Feed/Gain

- %

- %


Lanyu Small-Ear Miniature Pig

Reproductive Performance

| | |
|--|-----------------------|
| Gestation length | — days |
| Number of teats at left | 5.51 ± 0.59 teats |
| Number of teats at right | 5.36 ± 0.55 teats |
| Frequency for pigs with ≥ 12 teats | — % |
| Litter size at birth  | 8.80 ± 2.20 heads |
| Sex ratio at birth(male : female) | — |
| Litter size born alive | — heads |
| Litter size at 3-week od age | 6.80 ± 2.60 heads |
| Litter size at 8-week of age | 6.10 ± 2.30 heads |
| Litter weight at birth | 5.66 ± 3.13 Kg |
| Litter weight at 3-week of age | 18.00 ± 8.70 Kg |
| Litter weight at 8-week of age | 50.03 ± 31.14 Kg |

Lanyu Small-Ear Miniature Pig

Living Habits

1. Piglet are very sensitive when they are stimulated by environmental factors.
2. Both boars and sows are  mature early and have mounting behavior.
3. Most sows have good mothering ability in terms of protection piglets away from danger.
4. Pigs are alert to moving objects during sexual intercourse and stop immediately.
5. Piglets have glossy skin.

Lanyu Small-Ear Miniature Pig

Body Temperature

| | |
|-----------------------------|----------------------------------|
| Rectal temperature at birth | $38.51 \pm 1.54^{\circ}\text{C}$ |
|-----------------------------|----------------------------------|

| | |
|-------------------------------------|----------------------------------|
| Rectal temperature at 8-week of age | $39.59 \pm 0.43^{\circ}\text{C}$ |
|-------------------------------------|----------------------------------|



| | |
|--------------------------------------|----------------------------------|
| Rectal temperature at 12-week of age | $40.43 \pm 0.50^{\circ}\text{C}$ |
|--------------------------------------|----------------------------------|

Lanyu Small-Ear Miniature Pig

Hematological Measurement

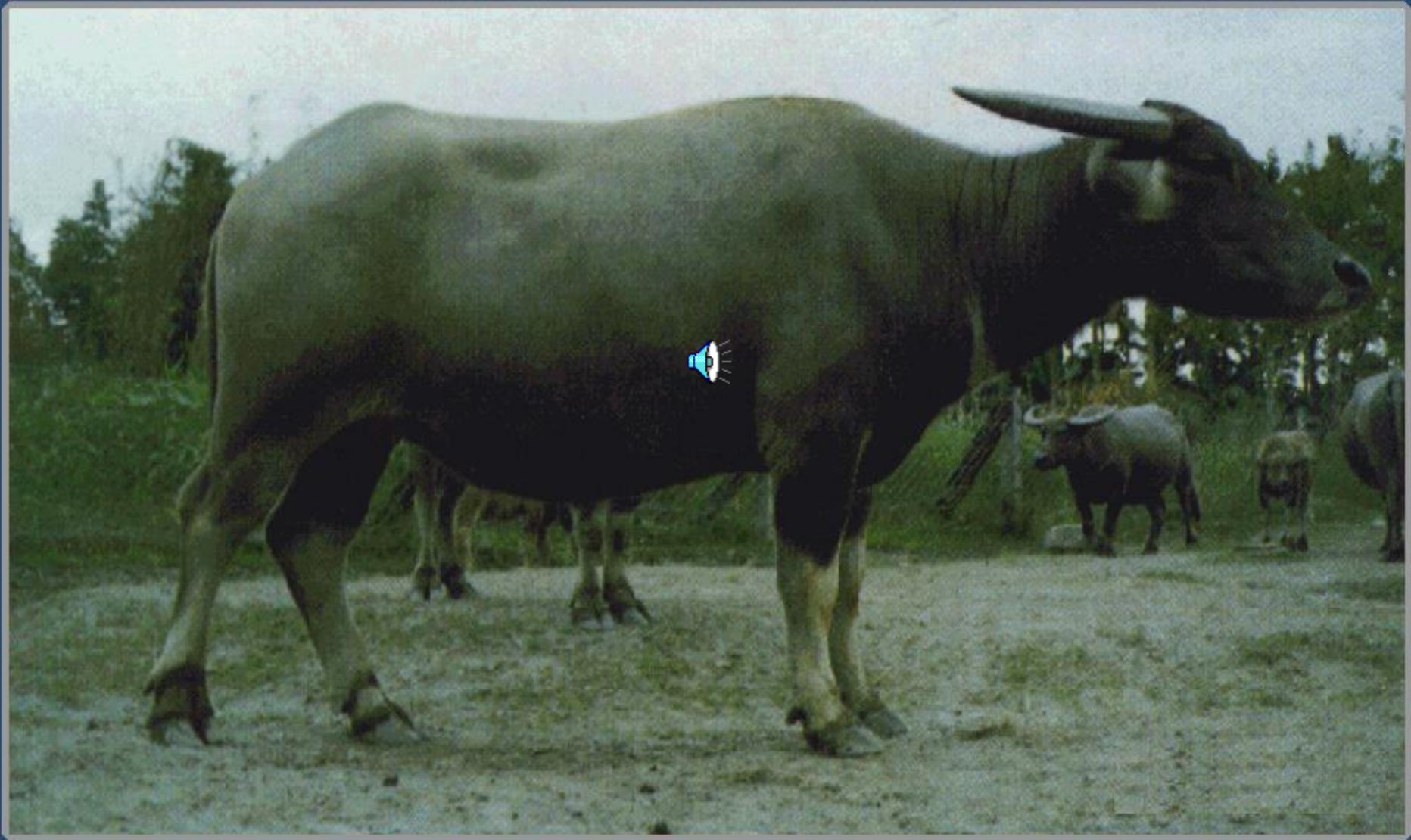
| | |
|-----------------------------|---|
| RBC counts at birth | $3.20 \pm 0.92 \times 10^6/\mu\text{l}$ |
| at 8-week of age | $3.72 \pm 0.72 \times 10^6/\mu\text{l}$ |
| at 12-week of age | $4.52 \pm 0.31 \times 10^6/\mu\text{l}$ |
| WBC counts at 8-week of age | $919 \pm 346/\mu\text{l}$ |
| at 12-week of age | $1076 \pm 437/\mu\text{l}$ |
| after 12-week of age | $873 \pm 193/\mu\text{l}$ |
| Hemoglobin at birth | $8.10 \pm 3.26 \text{ g/dl}$ |
| at 8-week of age | $9.39 \pm 2.04 \text{ g/dl}$ |
| at 12-week of age | $12.28 \pm 1.67 \text{ g/dl}$ |
| after 12-week of age | $11.45 \pm 1.42 \text{ g/dl}$ |
| Blood glucose at birth | $88.33 \pm 39.83 \text{ mg/dl}$ |
| at 8-week of age | $101.43 \pm 26.09 \text{ mg/dl}$ |
| at 12-week of age | $92.58 \pm 28.38 \text{ mg/dl}$ |
| after 12-week of age | $102.75 \pm 45.10 \text{ mg/dl}$ |

Water Buffalo (Swamp type)



Bull

Water Buffalo (Swamp type)



Cow

Water Buffalo (Swamp type)



Black or dark brown skin A white line beneath neck and throat

Water Buffalo (Swamp type)



Like to soak in water, accept sparse food. Poor heat tolerance.

Water Buffalo (Swamp type)



White from knee caps down. Swept back, crescent shape horns

Water Buffalo (Swamp type)




Gregarious, docile.

Water Buffalo (Swamp type)

Growth Performance


Mean + SD

| | |
|---|---------------|
| Male birth weight | 30.4 ± 2.0 Kg |
| Female birth weight | 29.5 ± 0.7 Kg |
| Male weaning (205 days old) weight | 172 ± 17 Kg |
| Female weaning weight  | 150 ± 13 Kg |
| Male yearling weight | 235 ± 24 Kg |
| Female yearling weight | 306 ± 34 Kg |
| Male body weight at 2-year old | 415 ± 23 Kg |
| Female body weight at 2-year old | 398 ± 30 Kg |
| Survival rate 2-year of age | 93 % |
| Dressing percentage | 50.2 % |

Water Buffalo (Swamp type)

Reproductive

Performance

| | |
|--|-----------------|
| Age at puberty | 658 ± 27 days |
| Age at first parity | 938 ± 26 days |
| Gestation length | 321 ± 7 days |
| Sex ratio at birth(male : female) | 1.11 : 1.00 |
| Farrowing interval  | 409 ± 50 days |
| Most frequent month for farrowing | May to October |
| Plasm progesterone at luteal phase | 1.5 – 2.0 mg/ml |
| Fecal progesterone at luteal phase | 150 – 200 mg/ml |
| Plasm progesterone at follicular phase | 0.4 – 0.8 mg/ml |
| Fecal progesterone at follicular phase | 50 – 100 mg/ml |

Water Buffalo (Swamp type)


CONFORMATION

MEASUREMENTS

| | |
|---|--------------|
| Body length(the distance from the middle point between two earheads to tailhead) | 126 — 160 cm |
| Withers height(the distance from shoulder-blades to ground) | 125 – 137 cm |
| Chest girth(the circumference of chest which measured over back shoulder and foreflank) | 185 – 215 cm |
| Chest width (the widest area over the rump) | 41 – 49 cm |
| Chest depth(the height over the chest) | 67 – 77 cm |

Water Buffalo (Swamp type)

Tooth Structure

| | | |
|----------------|---|----------------|
| Age at 2 teeth | | 32 – 44 months |
| Age at 4 teeth |  | 40 – 54 months |
| Age at 6 teeth | | 51 – 60 months |
| Age at 8 teeth | | 56 – 66 months |

Yellow Cattle, Taiwan Zebu



Bull

Yellow Cattle, Taiwan Zebu



Cow

Yellow Cattle, Taiwan Zebu



Coat color varied with yellow, red, brown, black and gray.

Yellow Cattle, Taiwan Zebu



Coat color varied with yellow red brown black and gray

Yellow Cattle, Taiwan Zebu



Coat color varied with yellow, red, brown, black and gray.

Bull has larger pointed shoulder than cow has.

Yellow Cattle, Taiwan Zebu



Coat color varied with yellow, red, brown, black and gray.

Yellow Cattle, Taiwan Zebu



GOLDEN - GATE ISLAND

Coat color varied with yellow, red, brown, black and gray

Yellow Cattle, Taiwan Zebu



Coat color varied with yellow, red, brown, black and gray

Yellow Cattle, Taiwan Zebu



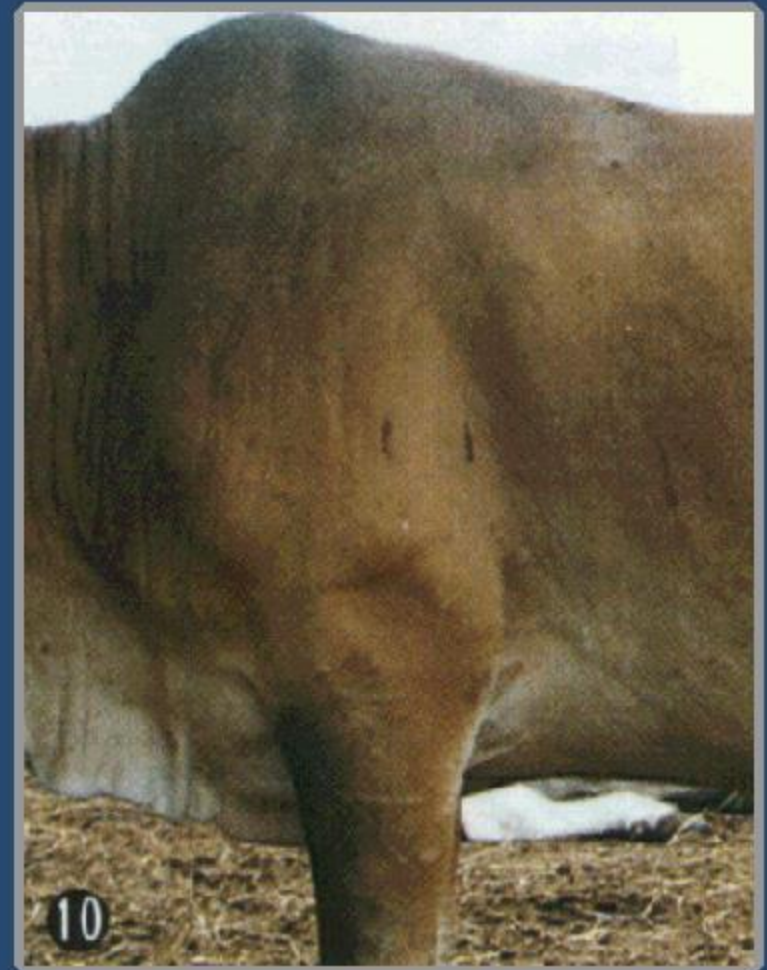
Bull has larger pointed shoulder than cow has

Yellow Cattle, Taiwan Zebu



Bull has larger pointed shoulder than cow has.

Yellow Cattle, Taiwan Zebu



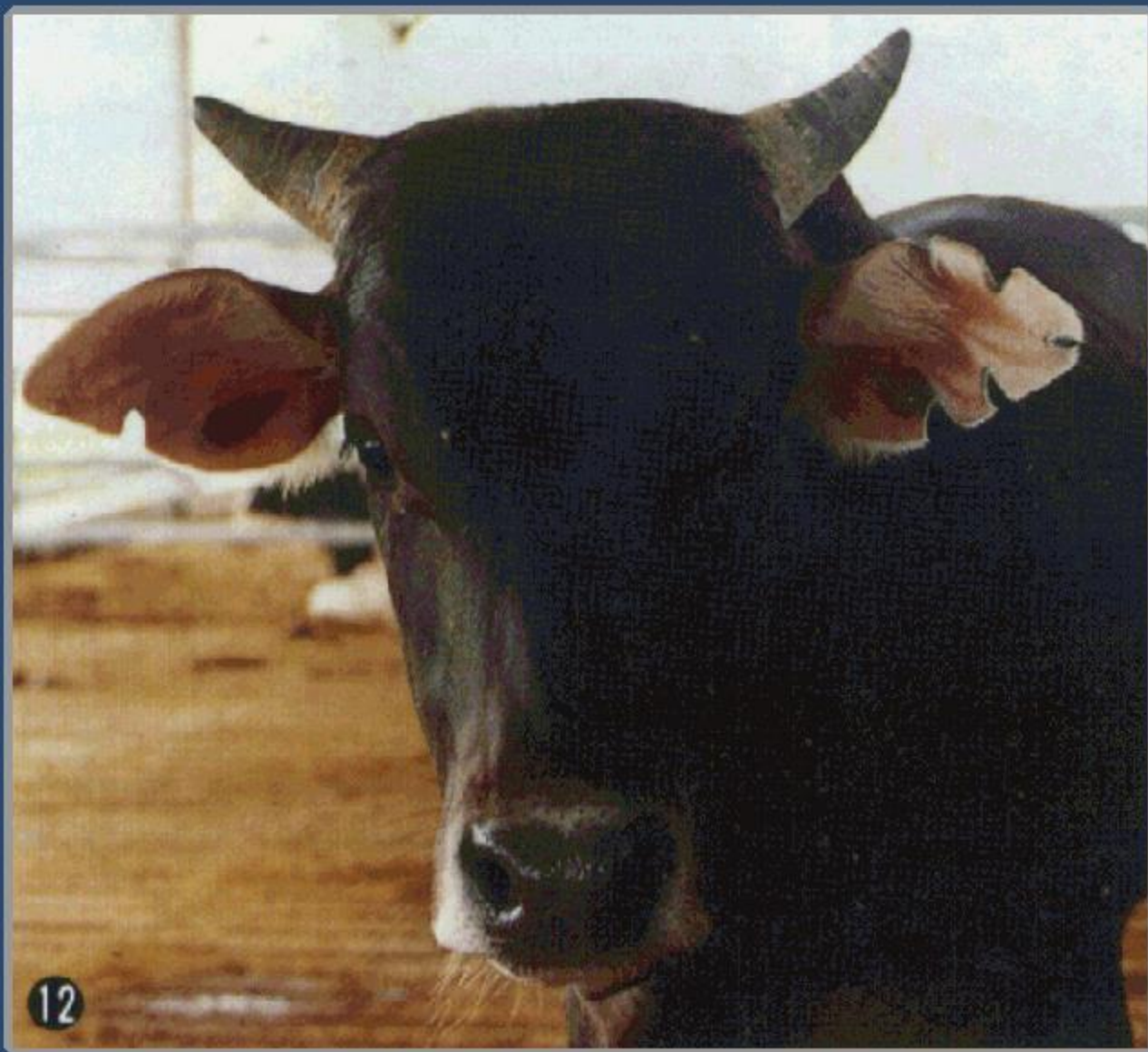
Bull has larger pointed shoulder than cow has.

Yellow Cattle, Taiwan Zebu



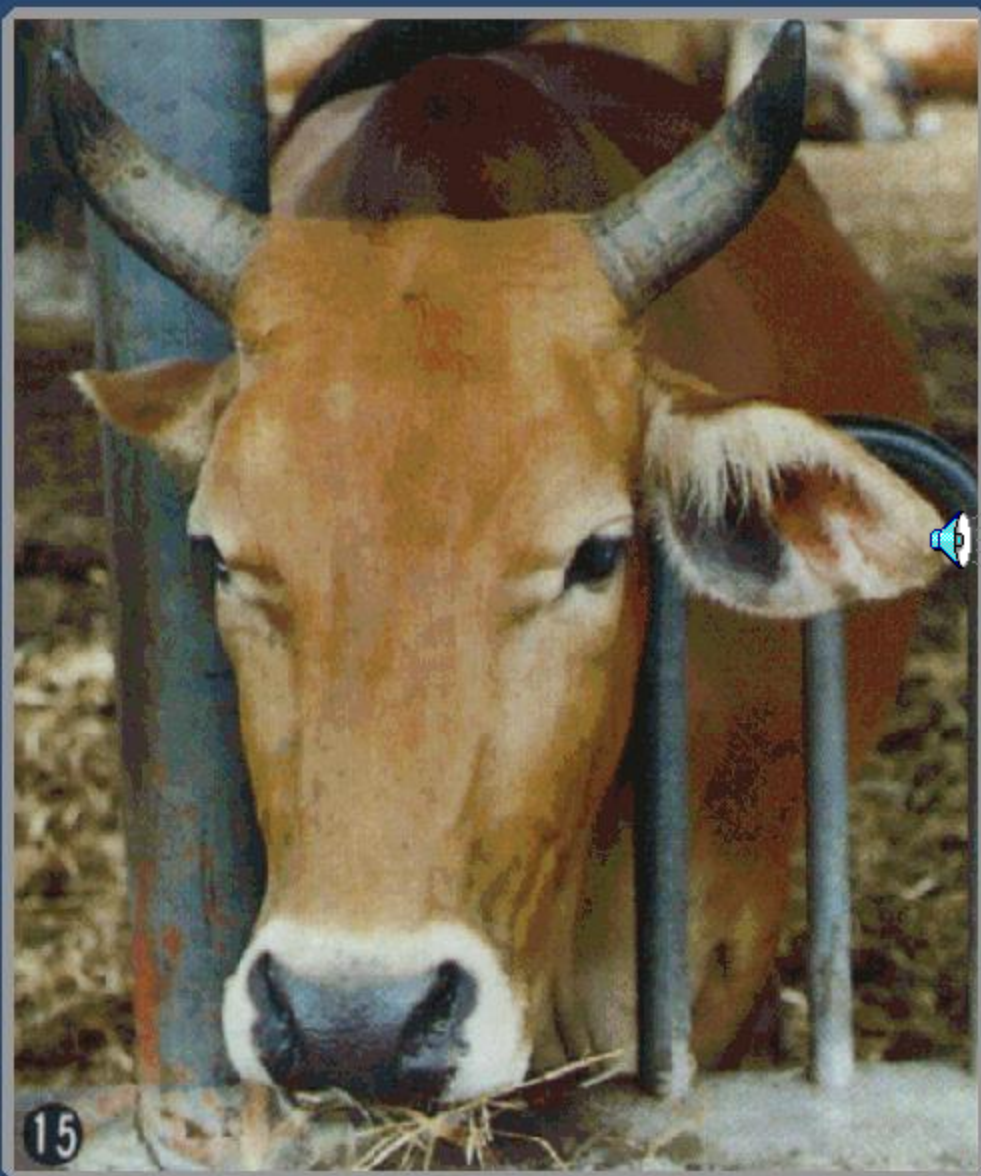
Cow has a small horn-base with sweptfore, crescent-shaped horns.
Hornbase with coarse and ring-type wrinkles.

Yellow Cattle, Taiwan Zebu

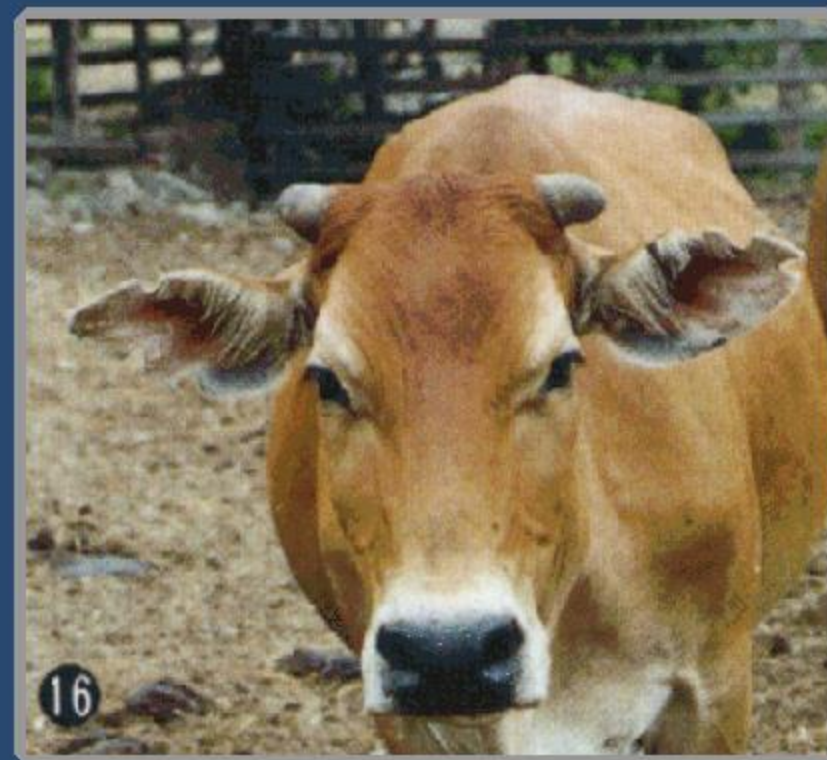


Hornbase with coarse and ring-type wrinkles.

Yellow Cattle, Taiwan Zebu



Small, thin ears but not hanging .



Black snout with light black at edge.

Yellow Cattle, Taiwan Zebu



Small, thin ears but not hanging .

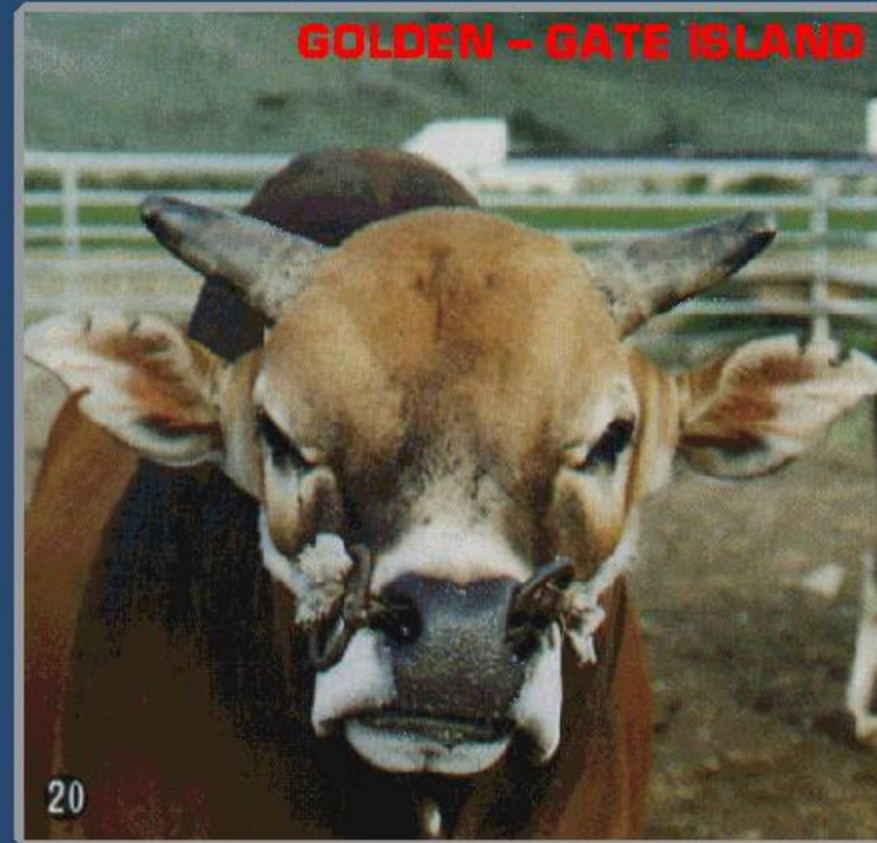
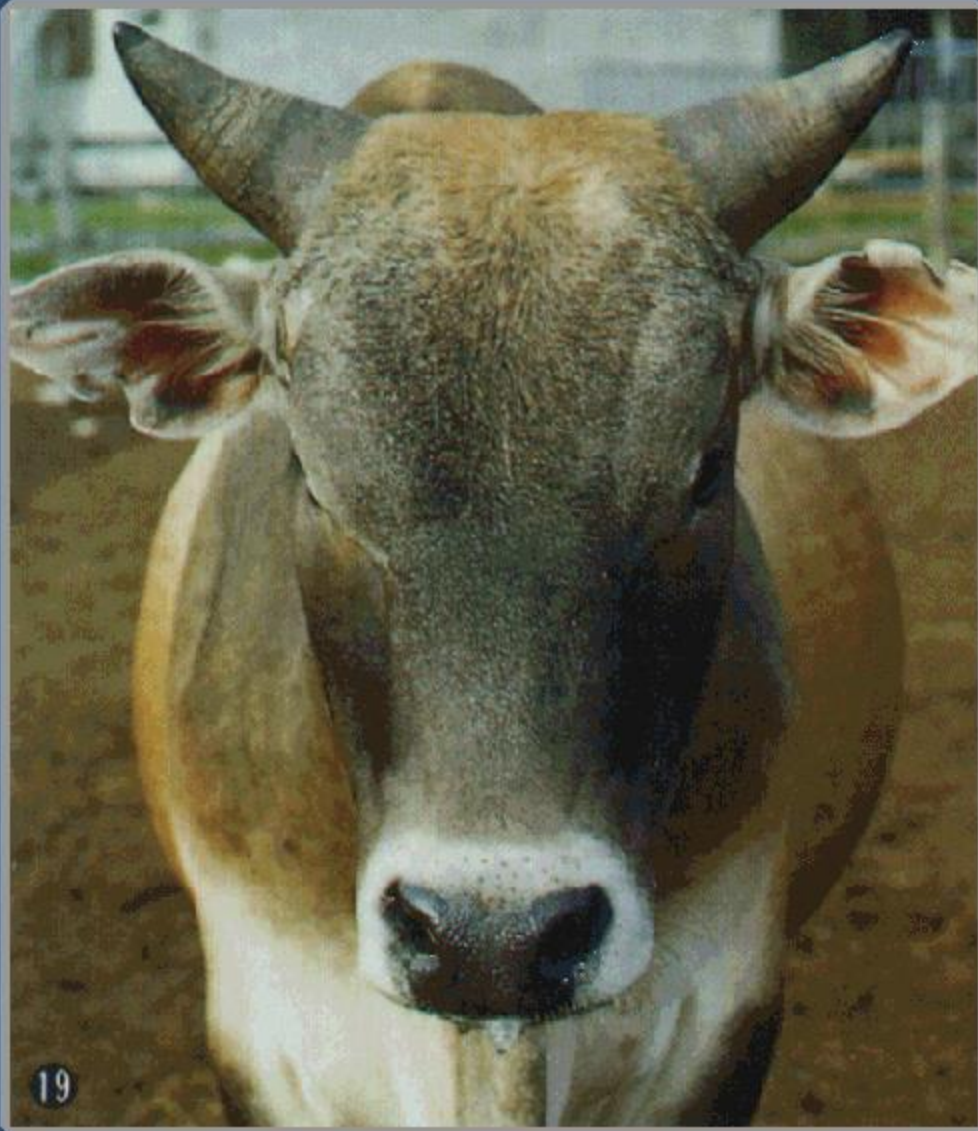
Black snout with light black at edge.

Bull has a large sweptout, crescent-shaped horns.

Hornbase with coarse and ring-type wrinkles.

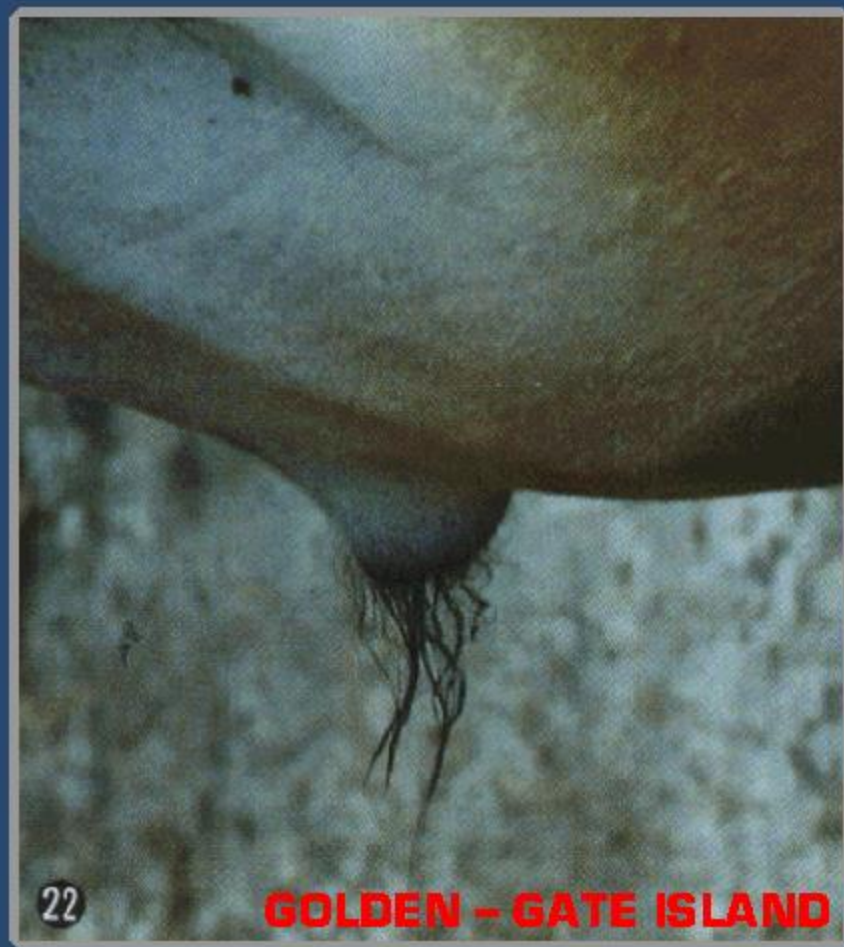
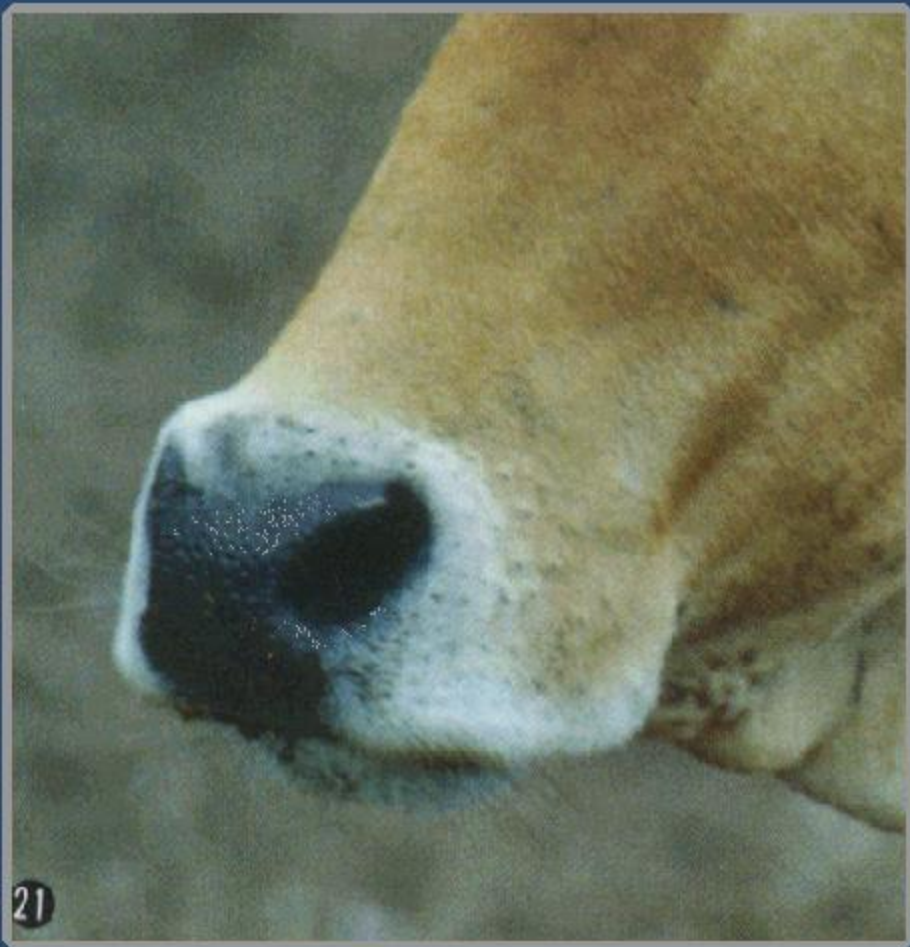


Yellow Cattle, Taiwan Zebu



Bull has a large sweptout, crescent-shaped horns.

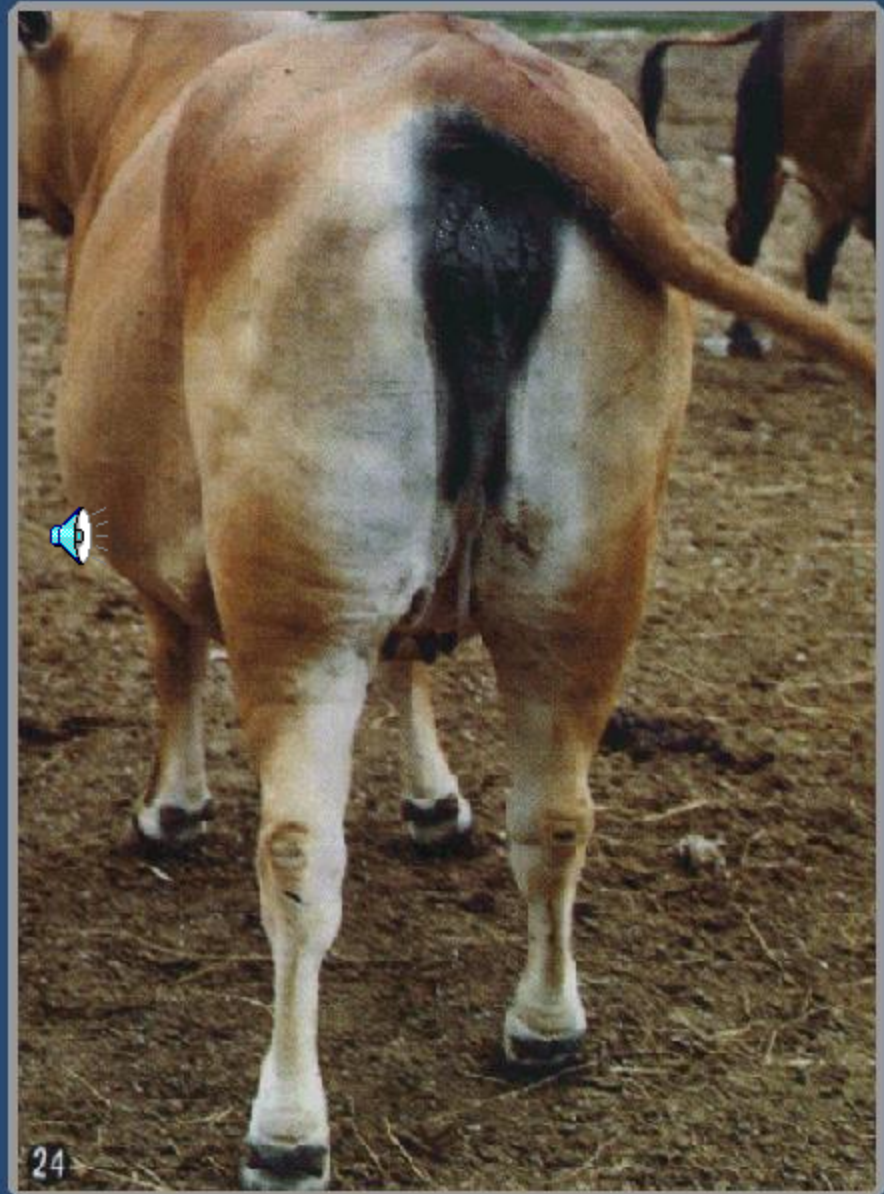
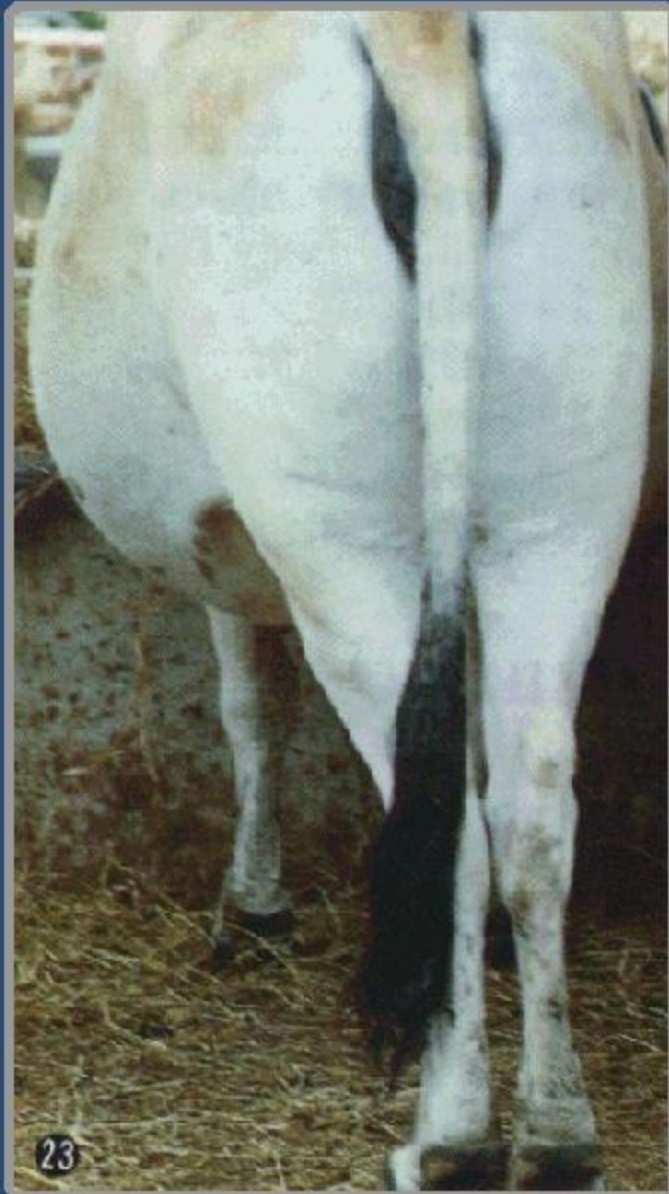
Yellow Cattle, Taiwan Zebu



Black snout with light black at edge.

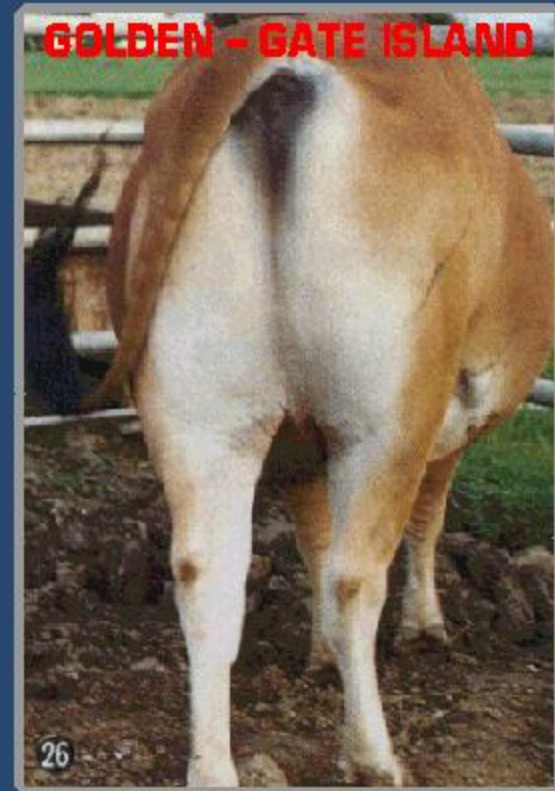
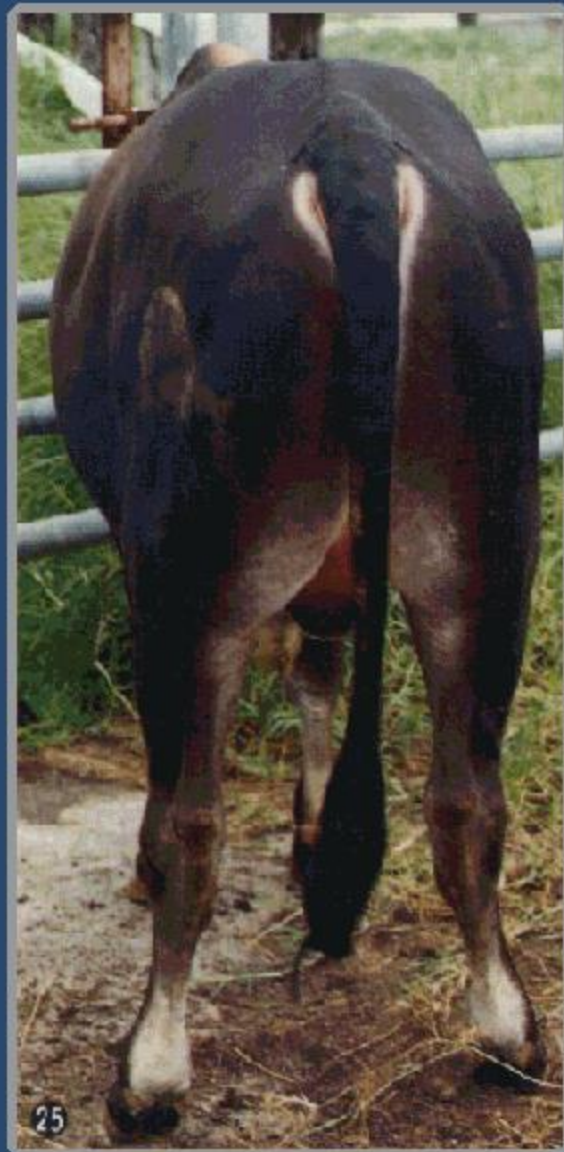
Bull prepuce is short and doesn't droop.

Yellow Cattle, Taiwan Zebu



Tip of tail dark brown or black

Yellow Cattle, Taiwan Zebu



Belly, inside of legs and rearside of hindlegs are paler than the rest of the body

Water Buffalo (Swamp type)

Growth Performance

Mean + SE

| | |
|--------------------------------------|-----------------|
| Birth weight | 23.46 ± 4.50 Kg |
| Body length at birth | 58.77 ± 4.52 cm |
| Withers height at birth | 64 ± 4 cm |
| Hip height at birth | 66 ± 4 cm |
| Chest girth at birth | 65 ± 5 cm |
| Body weight at weaning(205 days old) | 130 ± 36 Kg |
| Hip height at weaning | 97 ± 5 cm |
| Scrotal circumference at weaning | 16.87 ± 3.84 cm |
| Yearling weight | 223 Kg |
| Feed conversion(gain/dry feed) | 0.096 Kg |

Male

Water Buffalo (Swamp type)

Growth Performance

Mean + SE

| | |
|--------------------------------------|-----------------|
| Birth weight | 20.71 ± 3.12 Kg |
| Body length at birth | 55.18 ± 3.19 cm |
| Whithers height at birth | 63 ± 3 cm |
| Hip height at birth | 65 ± 3 cm |
| Chest girth at birth | 62 ± 4 cm |
| Body weight at weaning(205 days old) | 122 ± 30 Kg |
| Hip height at weaning | 96 ± 6 cm |
| Scrotal circumference at weaning | 16.87 ± 3.84 cm |
| Yearling weight | 218 Kg |
| Feed conversion(gain/dry feed) | 0.079 Kg |

Female

Water Buffalo (Swamp type)

Reproductive Performance

| | |
|-----------------------------|---------------|
| Age at puberty | 421 ± 64 days |
| Body weight at first parity | 310 ± 43 Kg |
| Mature weight of cows | 393 ± 63 Kg |
| Length of estrous cycle | 20 – 26 days |
| Gestation length | 285 ± 4 days |

Water Buffalo (Swamp type)

Milk Production

Length of lactation : 200 – 210 days

Daily milk yield : 2.7 Kg

Milk fat : 5.0 %

Protein : 4.36 %

Lactose : 4.34 %

Acidity : 0.14 %

Milk pH : 6.1

Gravity : 1.033

Water Buffalo (Swamp type)

Living Habits

1. Docile.
2. Heat tolerance. 
3. Accept coarse food and tick - resistant.

Black Goat



Buck

Black Goat



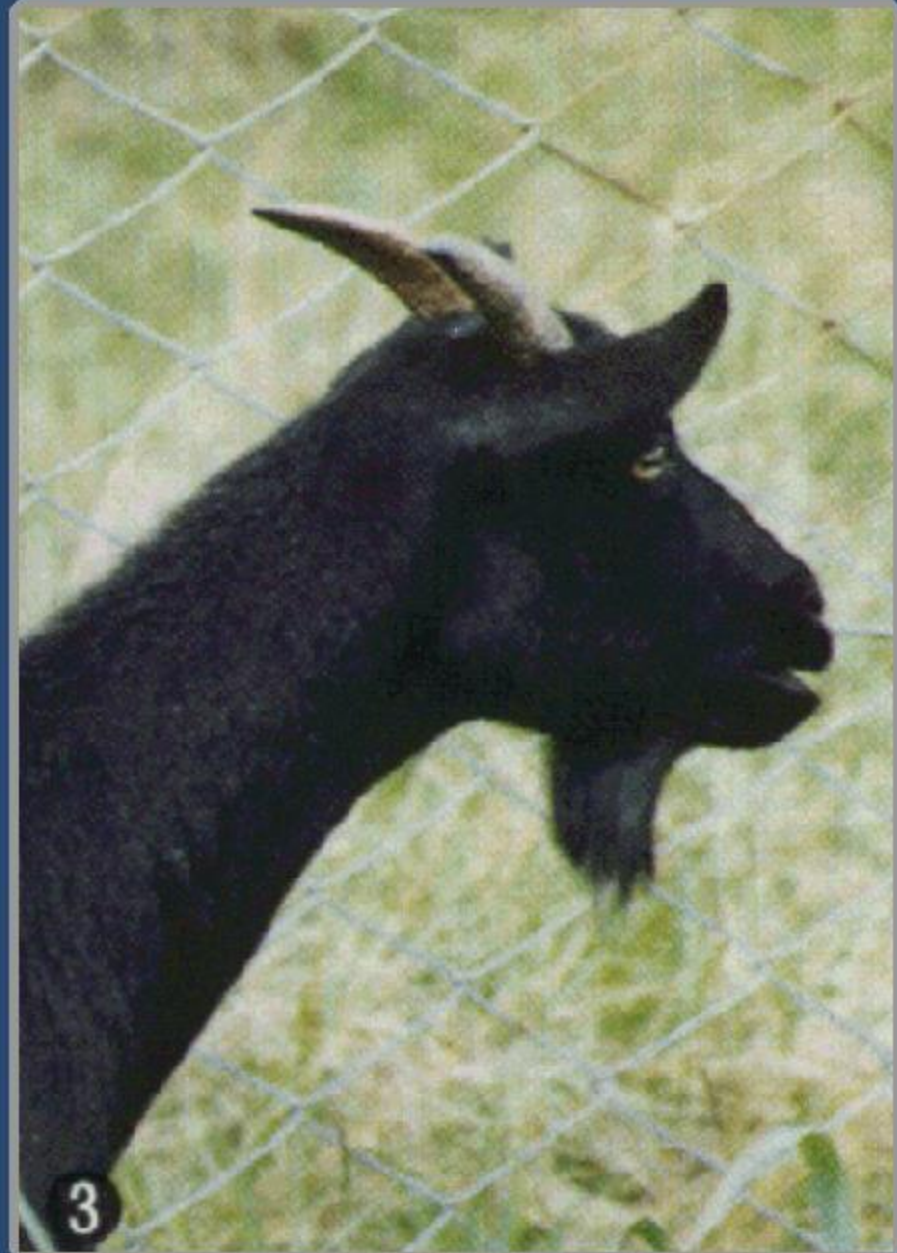
Doe

Black Goat



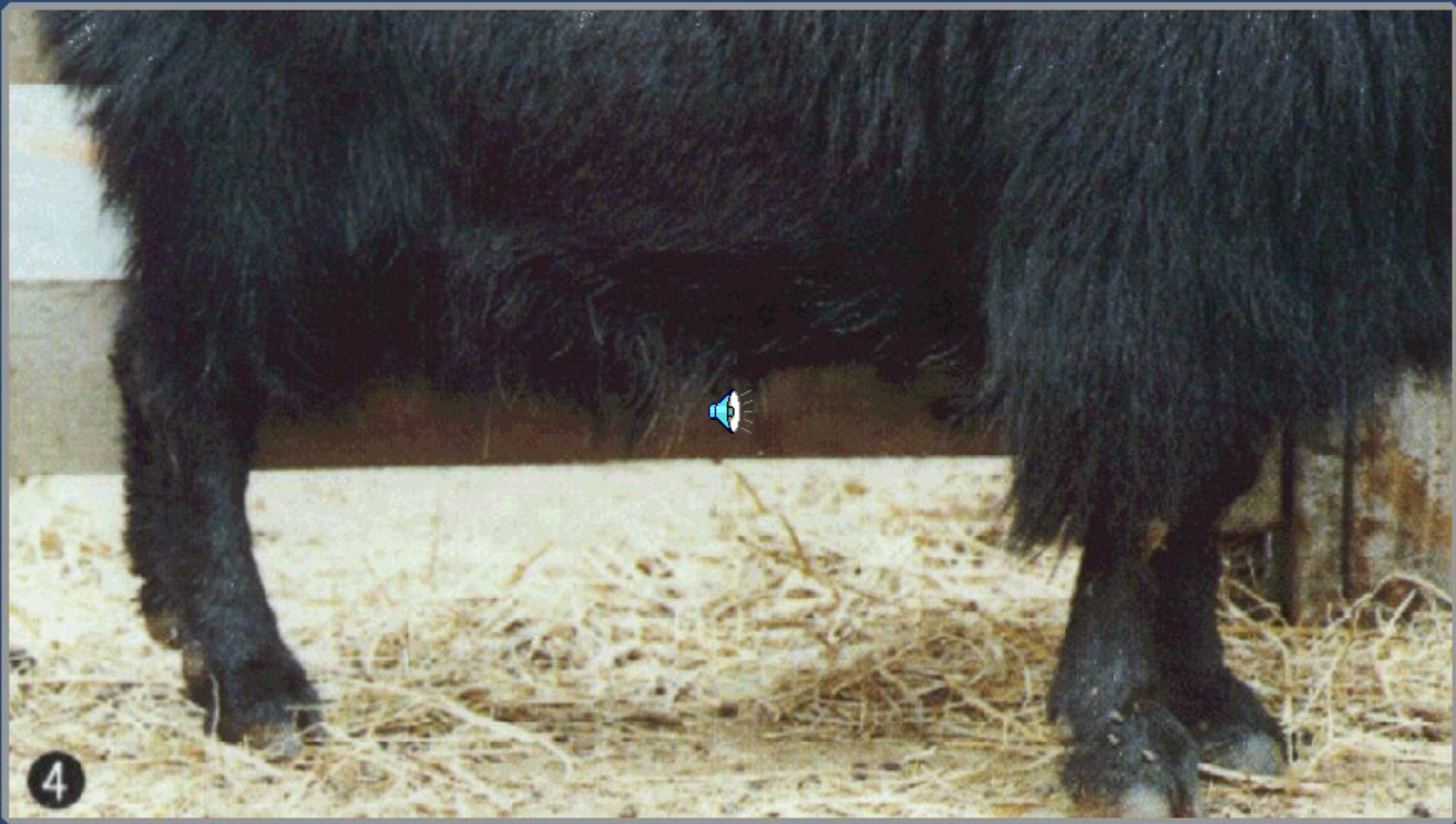
Coat color is solid black or dark brown with no white spots.

Black Goat



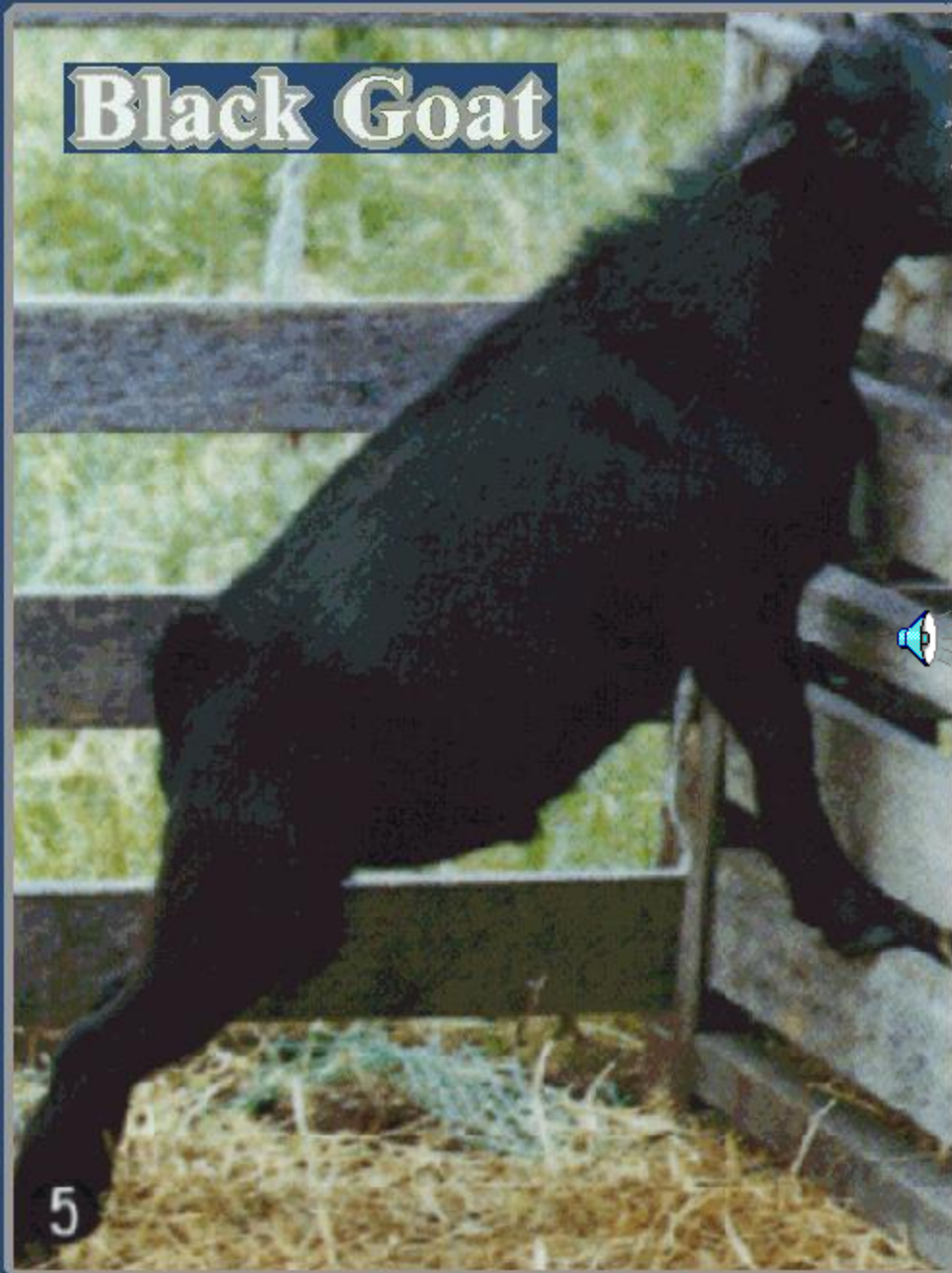
Both sexes are horned with 15-20 cm long. Females have beards.

Black Goat



Bucks have long hairs.

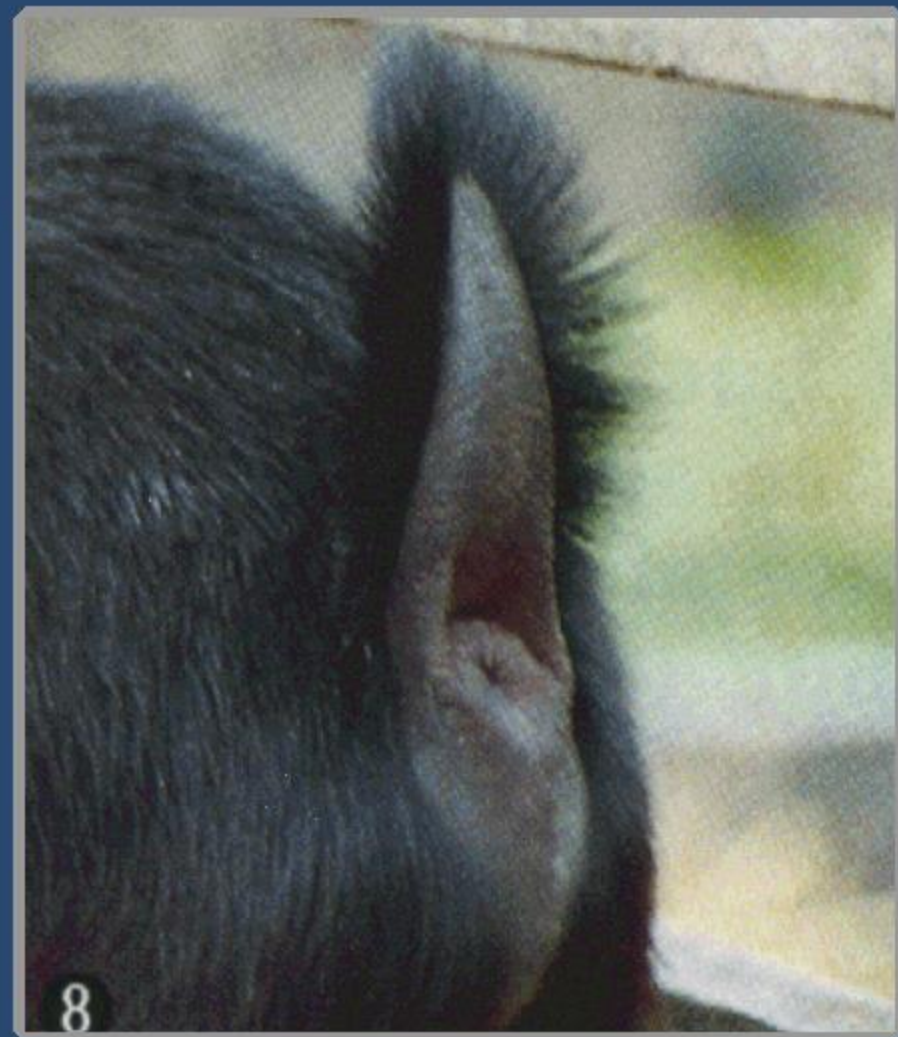
Black Goat



Young goats not yet have beards.

Active, like to climb rocks and heights

Black Goat



Does have short hairs over the body.

Short tail but erect.

Black Goat



Mature early, nonseasonal breeding.

Black Goat

Growth Performance

Mean + SD

| | |
|---------------------------------------|--------------------|
| Male birth weight | 2.7±0.3 Kg |
| Female birth weight | 2.6±0.5 Kg |
| Male weaning weight | 13.7±1.6 Kg |
| Female weaning weight | 11.9±0.7 Kg |
| Average daily gain before weaning(M) | 0.13±0.03 Kg |
| Average daily gain before weaning(F) | 0.11±0.01 Kg |
| Male mature weight | 64.1±5.4 Kg |
| Female mature weight | 44.8±5.9 Kg |
| Average daily gain at postweaning | 0.20 Kg (M) |
| Postweaning feed conversion | 6.20 Feed/Gain (M) |
| Dressing percentage | 48.4 % (M) |
| Lean percentage | 32.9 % (M) |

Black Goat

Reproductive Performance

| | |
|------------------------------------|------------------|
| Age at puberty of bucks | 135 ± 13 days |
| Pubertal weight of bucks | 19.1 ± 4.0 Kg |
| Scrotal circumference at puberty | 19.4 ± 1.9 cm |
| Scrotal circumference at maturity | 22.5 ± 2.1 cm |
| Interval from kidding to recycling | 34.6 ± 11.4 days |
| Kidding rate by 100 does | 161.3 % |
| Singling rate | 41.9 % |
| Twinning rate | 54.8 % |
| Tripling rate | 3.3 % |

Black Goat


CONFORMATION

MEASUREMENTS

| | |
|---|---------------------------|
| Body length (the distance from the middle point between two earheads to tailhead) | 88.1 ± 3.6 cm (M) |
| | 67.1 ± 3.8 cm (F) |
| Withers height (the distance from shoulder-blades to ground) | 76.2 ± 4.5 cm (M) |
| | 67.1 ± 3.8 cm (F) |
| Chest girth (the circumference of chest measured over back shoulder and foreflank) | 100.0 ± 4.2 cm (M) |
| | 85.4 ± 4.6 cm (F) |

Black Goat

Milk Production

| | | |
|---------------------|---|--------------------|
| Length of lactation | | 150 days |
| Daily milk yield |  | 0.82 ± 0.37 Kg |
| Milk fat | | 5.5 ± 0.3 % |

Black Goat



Buck

Black Goat



Doe

Black Goat



Coat color is solid black or dark brown with no white spots

Black Goat



Small in size

Move quickly

Black Goat



Both sexes have beards at maturity

Black Goat



Horns grow toward back and edging out. Most of bucks are active

Black Goat



Heat tolerance.

Gregarious.

Good maternal behavior.

Black Goat



Accent coarse food.

Black Goat


Visible Characteristics

1. Coat color is solid black or dark brown with no white spots.
2. Small in size.
3. Move quickly.
4. Both sexes have beards at maturity.
5. Horns grow toward back and ending out.
6. Most of bucks are active.
7. Heat tolerance.
8. Good maternal behavior.
9. Accept coarse food.

Black Goat

Growth Performance


Mean + SD

| | |
|--|------------------|
| Birth weight in male | 2.02 ± 0.30 Kg |
| Birth weight in female | 1.71 ± 0.40 Kg |
| Litter weight with single kid | 2.17 ± 0.40 Kg |
| Litter weight with twin kids | 3.95 ± 0.60 Kg |
| Litter weight with triple kids  | 5.5 ± 0.9 Kg |
| Body weight at 3-month old in male | 11.2 ± 3.2 Kg |
| Body weight at 3-month old in female | 10.1 ± 1.2 Kg |
| ADG before 3 months old in male | 0.102 ± 0.017 Kg |
| ADG before 3 months old in female | 0.091 ± 0.018 Kg |
| yearling weight | 20 – 23 Kg |

Black Goat

Reproductive

Performance

| | |
|--|-------------|
| Age at first conception | 242±19 days |
| Gestation length | 147±1 days |
| Farrowing interval | 221±13 days |
| Kidding rate by 100 does  | 174 % |
| Singling rate | 41.94 % |
| Twinning rate | 51.62 % |
| Tripling rate | 3.22 % |
| Quadrupling rate | 3.22 % |
| Survival rate at weaning | 75.08 % |

Black Goat

CONFORMATION

MEASUREMENTS

Yearling body length

48 – 51 cm

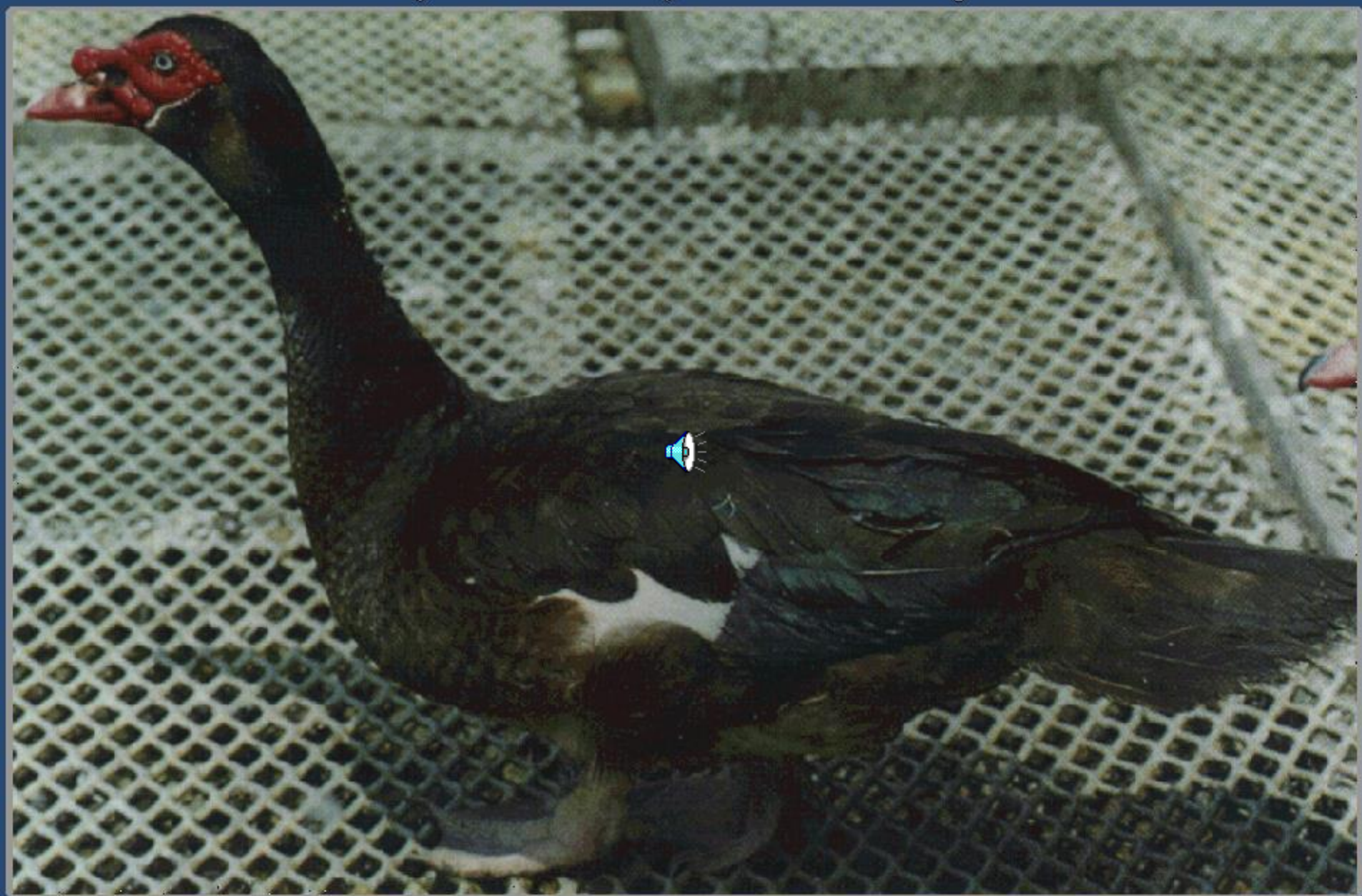
Yearling withers height

46 – 48 cm

Yearling chest girth

59 – 63 cm

Black (Colored) Muscovy Duck



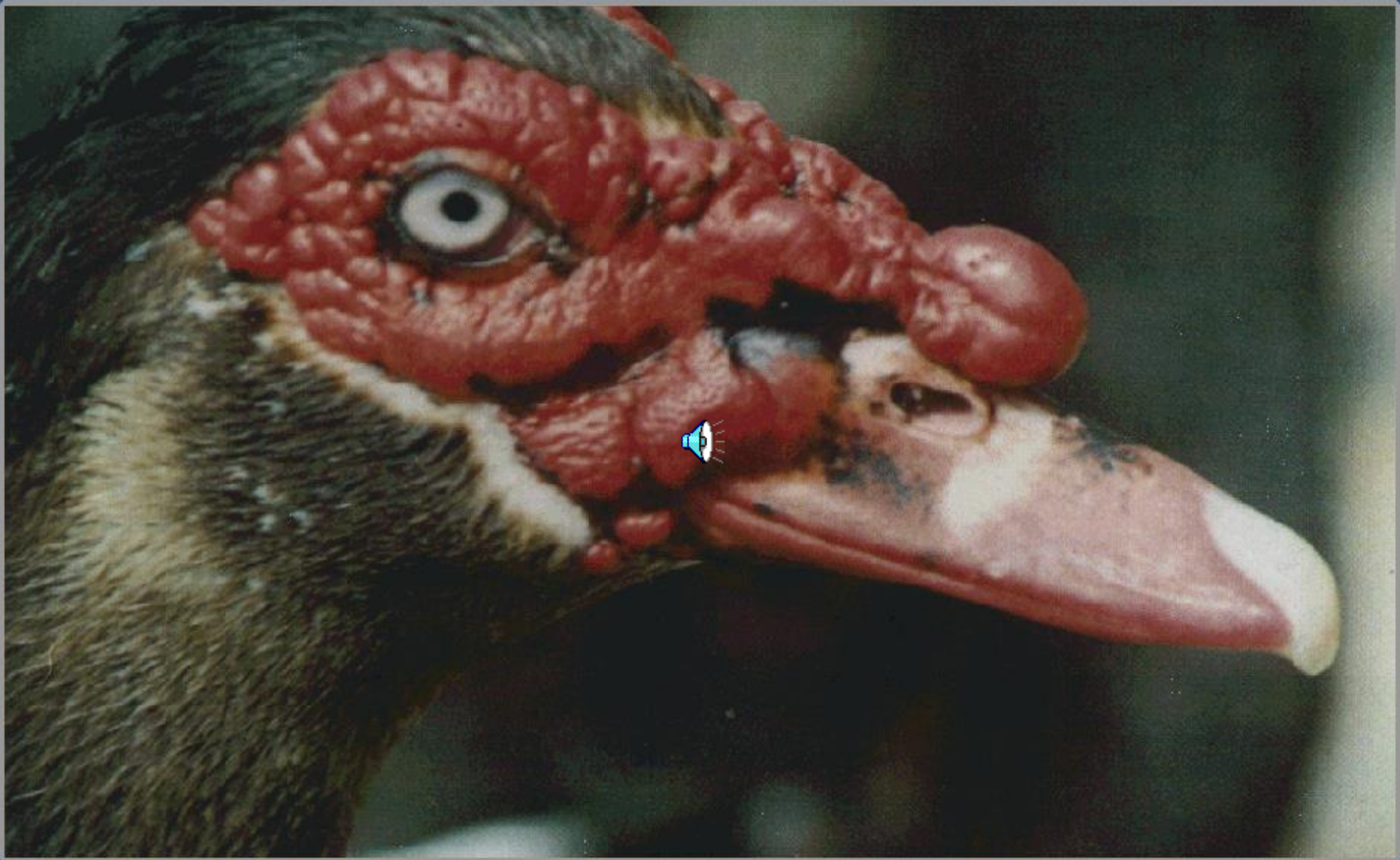
Drake

Black (Colored) Muscovy Duck



Hen

Black (Colored) Muscovy Duck



Bright red caruncles on face.

The bill is pinkish white with three vertical bands of black

Black (Colored) Muscovy Duck



Crown feathers on head and neck, stand up when frightened or aroused

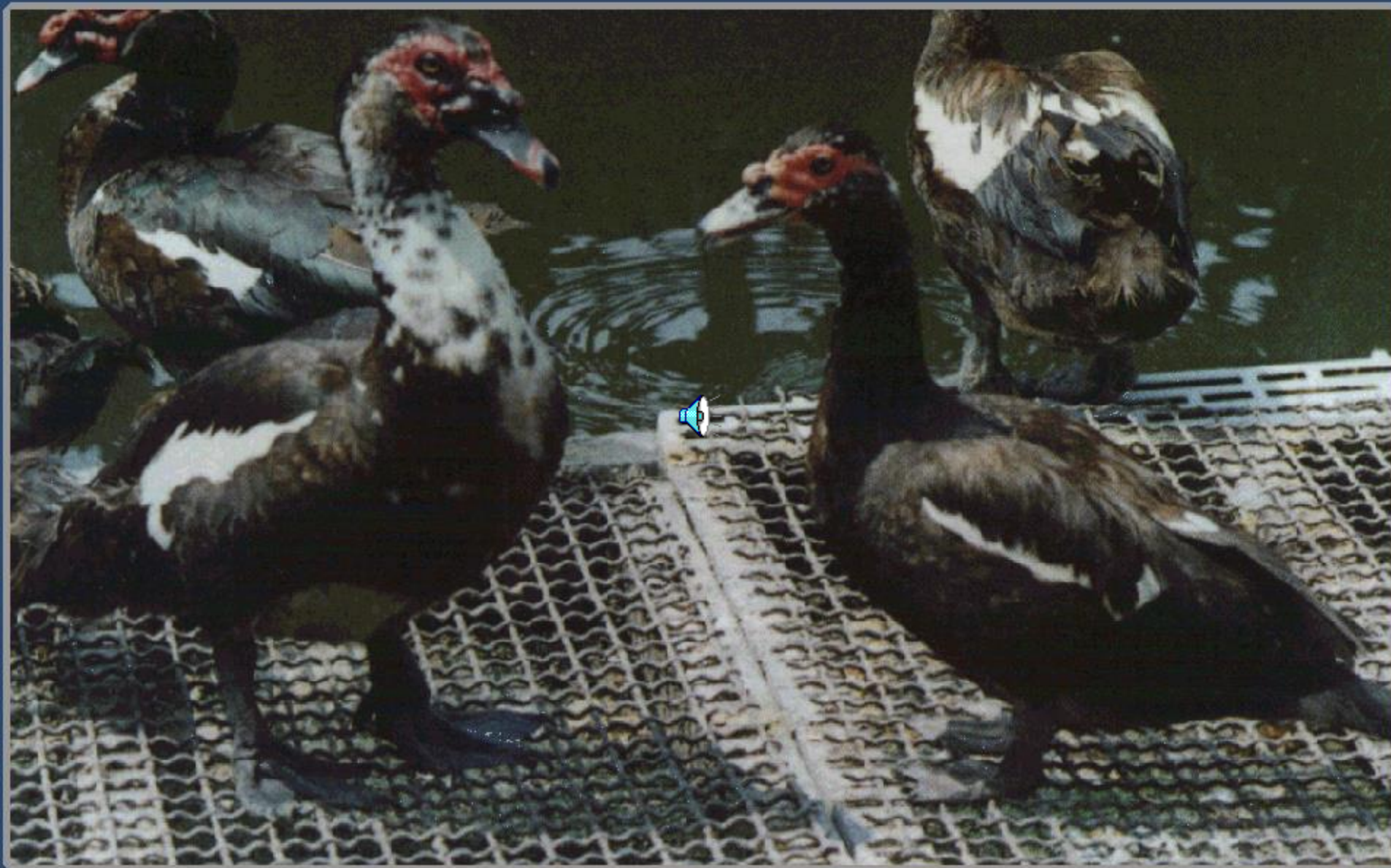
Black (Colored) Muscovy Duck



Drakes often fight over pecking order.

Adults generally have white patches on the wing covers, the breast and occasionally on the neck.

Black (Colored) Muscovy Duck



The eyes are always brown and the beak always a solid black.

Black (Colored) Muscovy Duck



Females are very broody, laying 10 – 15 eggs in one clutch.

Black (Colored) Muscovy Duck



Strong wings, can fly close to ground.
Semiterrestrial, don't like to swim in water.

Black (Colored) Muscovy Duck

Growth Performance

Mean + SE

| | | Male | Female |
|-------------------------------|-------------|------------------------------|---------------|
| Body weight at 10-week of age | | <hr/> | |
| | 18 | 2.40 ± 0.27 , 1.66 ± 0.13 Kg | |
| | 28 | 2.95 ± 0.37 , 1.83 ± 0.22 Kg | |
| | 36 | 3.34 ± 0.37 , 1.99 ± 0.19 Kg | |
| | 52 | 3.56 ± 0.29 , 2.27 ± 0.17 Kg | |
| L. of 8th primary feather at | | 3.33 ± 0.28 , 1.94 ± 0.19 Kg | |
| | 10 week old | 14.2 ± 2.3 | 16.6 ± 1.1 cm |
| | 18 | 25.4 ± 1.0 | 21.7 ± 1.0 cm |
| | 28 | 24.6 ± 1.6 | 21.6 ± 0.7 cm |

Black (Colored) Muscovy Duck

Laying Performance

Age at first egg : 27 weeks

First laying period : 30 to 60 weeks of age

Laying month with over 50% hen-day egg production : February to May

Hen-day egg production from 27 to 114 wk old : 30 %

Hen-day egg production from 27 to 114 wk old : peak at 36 wk old, 61 %

Egg weight at 30 wk old : 78.4 g

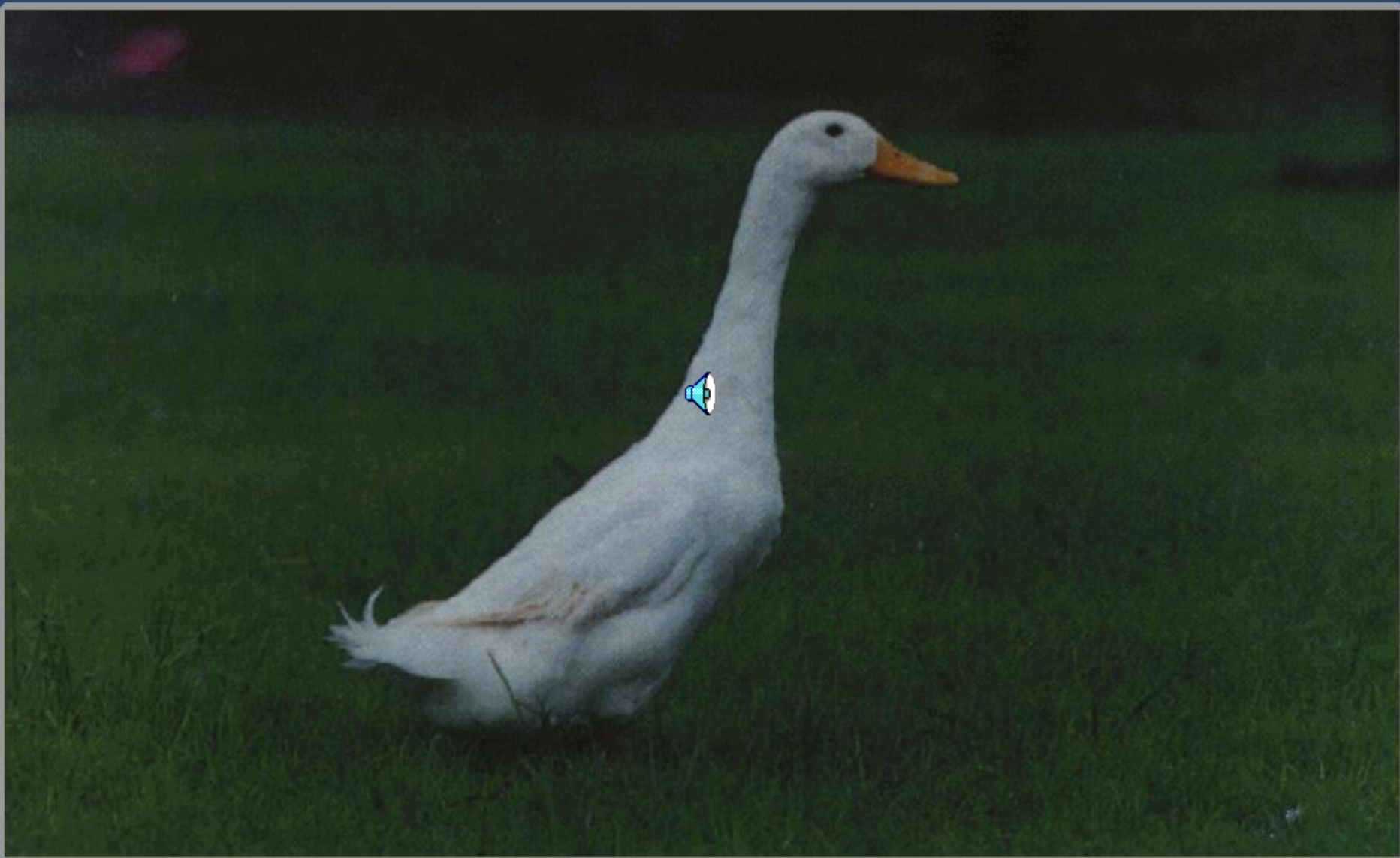
Egg weight at 40 wk old : 76.9 g

Black (Colored) Muscovy Duck

Living Habits

- 1. Drakes sound only a hiss.**
- 2. Muscovy hens make a loud noise if frightened.**
- 3. Usually can fly and rest upon walls.**
- 4. Drakes fight for territory or social dominance.**
- 5. Move slowly with back and tail flat.**
- 6. Muscovy hen has good brooding behavior but alert to arousing.**
- 7. More resistant to poor management.**
- 8. Semiterrestrial, not favorite for paddling.**

Common Duck -- White Tsaiya



Drake

Common Duck -- White Tsaiya



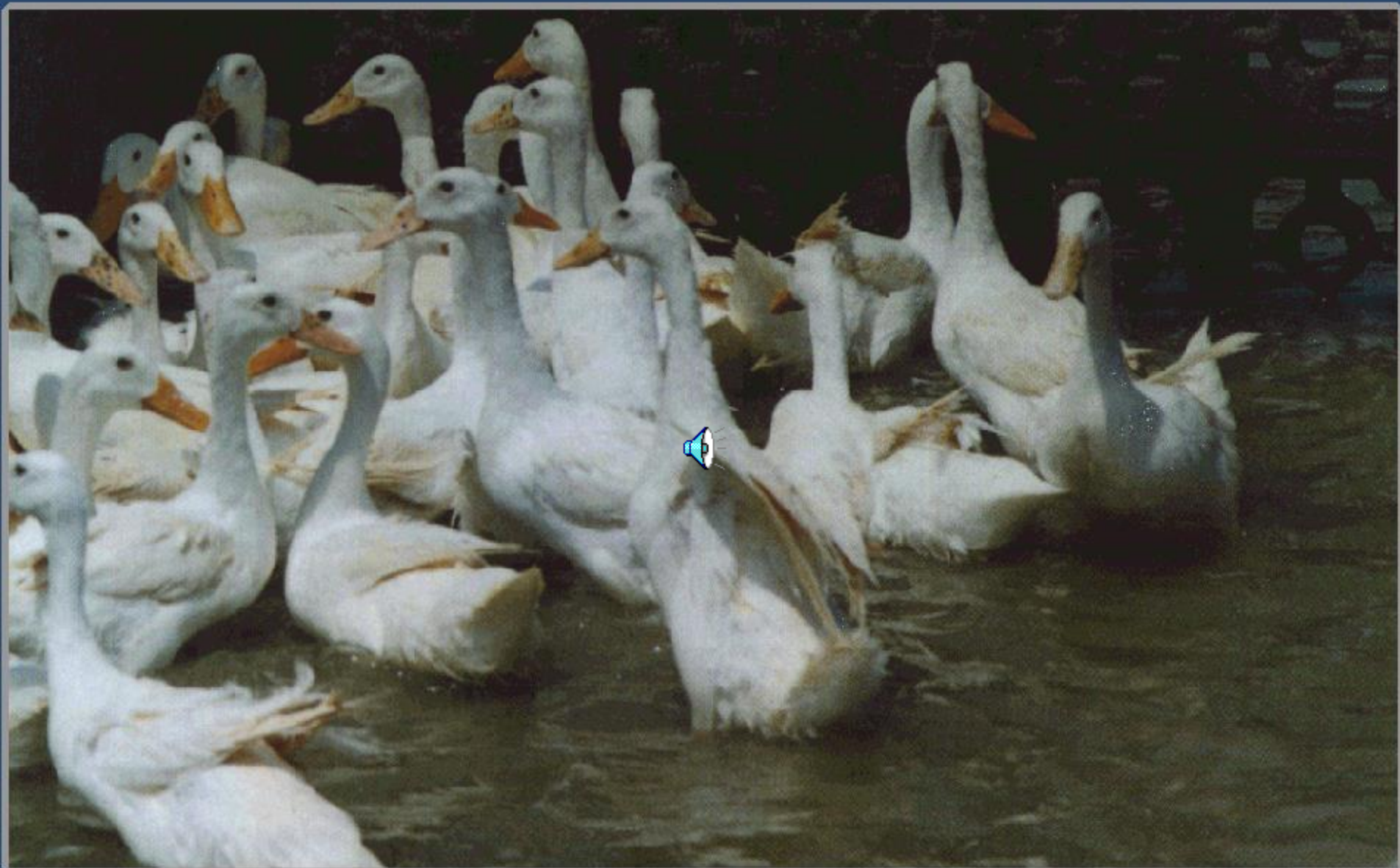
Hen

Common Duck -- White Tsaiya



White tsaiya originated from brown tsaiya and named TLRI No. 1
Congregate and play in water.
Orange-yellowish beak and feet

Common Duck -- White Tsaiya



Jittery, easily frightened.

Drakes have sexual feather on tail and hens don't

Black (Colored) Muscovy Duck

Growth Performance

Mean + SE

| | LINE 101 | LINE 102 | LINE 103 | |
|----------------------|-------------|-------------|-------------|----|
| Body weight at | | | | |
| 10 weeks old(Male) | 1.35 ± 0.13 | 1.24 ± 0.14 | 0.91 ± 0.13 | Kg |
| 16 | 1.41 ± 0.12 | - | 1.18 ± 0.11 | Kg |
| 20 | 1.50 ± 0.10 | 1.50 ± 0.14 | 1.26 ± 0.13 | Kg |
| 40 | 1.50 ± 0.10 | - | - | Kg |
| 10 weeks old(Female) | 1.30 ± 0.13 | 1.18 ± 0.12 | 0.87 ± 0.13 | Kg |
| 16 | 1.39 ± 0.15 | - | 1.13 ± 0.10 | Kg |
| 20 | 1.45 ± 0.16 | 1.41 ± 0.13 | 1.33 ± 0.13 | Kg |
| 40 | 1.58 ± 0.17 | - | - | Kg |
| 8th feather length | | | | |
| 10 weeks old(Male) | 13.3 ± 2.4 | 12.1 ± 2.2 | 5.89 ± 2.8 | cm |
| 16 | 16.9 ± 0.6 | - | 16.1 ± 0.7 | cm |
| 20 | 17.1 ± 0.5 | 16.5 ± 0.6 | 15.6 ± 0.5 | cm |
| 8th feather length | | | | |
| 10 weeks old(Female) | 13.6 ± 2.7 | 12.8 ± 2.4 | 6.89 ± 2.7 | cm |
| 16 | 16.5 ± 0.6 | - | 15.3 ± 0.5 | cm |
| 20 | 16.7 ± 0.7 | - | 15.1 ± 0.6 | cm |

Common Duck – White Tsaiya

Reproductive

Performance

| | | | |
|-----------------------------------|----------------|----------------|----------------------|
| Age at first egg | 125 ± 13 | 133 ± 13 | 130 ± 14 days |
| Number of eggs produced at | | | |
| 40 weeks old | 123 ± 28 | 107 ± 27 | 102 ± 28 eggs |
| 360 days old | 191 ± 34 | 190 ± 25 | 165 ± 30 eggs |
| Egg weight produced at | | | |
| 30 weeks old | 63.2 ± 4.4 | – | 56.9 ± 4.5 g |
| 40 weeks old | 70.1 ± 5.1 | 69.7 ± 4.8 | 59.9 ± 3.8 g |
| Shell strength of egg produced at | | | |
| 30 weeks old | 3.8 ± 0.6 | – | – Kg/cm ² |
| Yolk weight of eggs produced at | | | |
| 30 weeks old | 20.1 ± 1.8 | – | – g |

Common Duck – White Tsaiya

Origin of White Tsaiya

White Tsaiya has been developed by the Ilan Research Station (Duck Research Center), TLRI, ROC in Taiwan, over the last few decades. The white tsaiya is descended from the few individuals with pure white feathers in the Brown Tsaiya population. The white tsaiya is used as the female terminal line for the production of white mule ducks in a three - way cross, i.e. it is crossed with white Pekin drakes to produce white Kaiya hens, which are then inseminated with semen of white Muscovy drakes.

At present, three lines were kept at TLRI for this variety. L101 is a control population. L102 is a selected line for white plumage by recurrent selection. L103 is an inbred line bred by fullsib mating for more than 13 generations with a 0.926 of inbreeding coefficient.

Common Duck -- Brown Tsaiya



Drake

Common Duck -- Brown Tsaiya



Hen

Common Duck -- Brown Tsaiya



Brown Tsaiya have brown or light brown feathers.
Dark green or dark brown over the head and neck.
Females' beaks turn from orange to chestnut after egg laying.

Common Duck -- Brown Tsaiya



Lay up to 320 eggs a year but don't brood on them.
Sex feather appears after 6 weeks old in drake and its color is greenish or brown at maturity,
Congregate, jittery, easily frightened

Common Duck – Brown Tsaiya

Growth Performance

Mean + SD

Body weight at

10 weeks old(Male)

1.10 ± 0.14 Kg

16

1.25 ± 0.13 Kg

20

1.33 ± 0.11 Kg

40

1.36 ± 0.13 Kg

Body weight at

10 weeks old(Female)

1.07 ± 0.12 Kg

16

1.24 ± 0.12 Kg

20

1.39 ± 0.11 Kg

40

1.48 ± 0.12 Kg

8th feather length

10 weeks old(Male)

9.9 ± 2.8 cm

16

15.8 ± 0.6 cm

20

15.8 ± 0.5 cm

8th feather length

10 weeks old(Female)

10.6 ± 2.7 cm

16

15.3 ± 0.4 cm

20

15.1 ± 0.4 cm

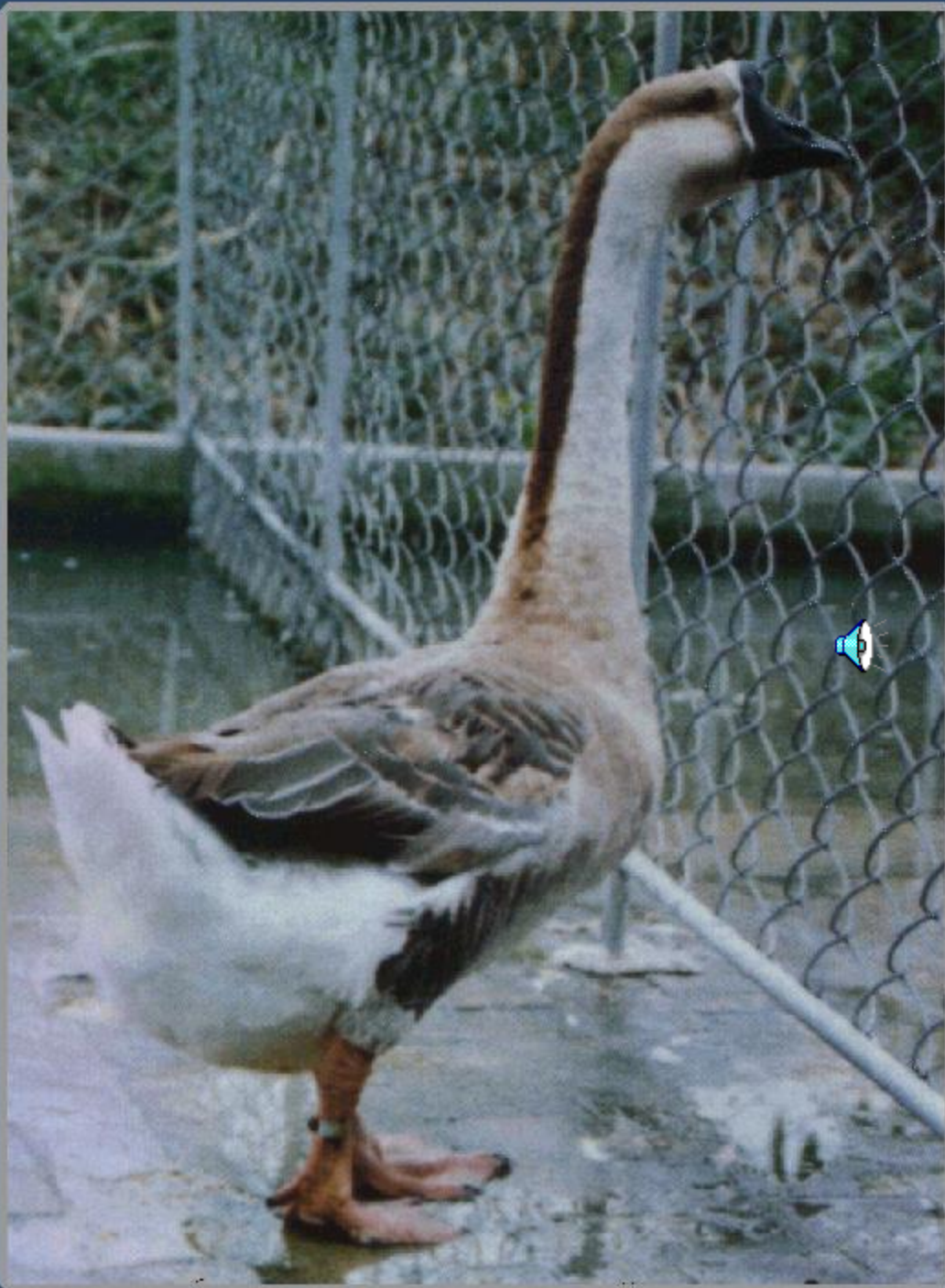


Common Duck – Brown Tsaiya

Reproductive Performance

| | |
|--|------------------------------|
| Age at first egg | 15 weeks |
| Number of eggs produced at 40 weeks old | — eggs |
| 360 days old | — eggs |
| Egg weight produced at | |
| 30 weeks old | 63.7 ± 4.5 g |
| 40 weeks old | 70.1 ± 4.1 g |
| 78 weeks old | 66.5 ± 5.9 g |
| Shell strength of egg produced at | |
| 30 weeks old | 3.7 ± 0.7 Kg/cm ² |
| 40 weeks old | 3.4 ± 0.8 Kg/cm ² |
| Yolk weight of eggs produced at | |
| 30 weeks old | 21.1 ± 2.0 g |
| 40 weeks old | 24.8 ± 2.2 g |

Brown (Gray) Chinese Goose



Gander

Brown (Gray) Chinese Goose



Female Goose

White Chinese Goose



Gander

White Chinese Goose



Female Goose

Brown (Gray) Chinese Goose



Both sexes have a knob on th top
of the head above the beak.

Brown (Gray) Chinese Goose



2

The knob is brownish black in the brown Chinese goose.

Brown (Gray) Chinese Goose



The feathers are gray, except for the feathers on the ventral part of the body which are pale gray or white.

Brown (Gray) Chinese Goose



Black beak, brown eyes and
dark orange feet.

White Chinese Goose



Solid white feathers, blue eyes and an orange-yellow beak and feet.

White Chinese Goose



Orange-yellow knob in White Chinese goose.

White Chinese Goose



A short tail turns upward in both kinds of Chinese goose.

White Chinese Goose



Female is smaller than male
in size.

White Chinese Goose



Cutting roughage with teeth on the edge of beak.

White Chinese Goose



Females brood on eggs.

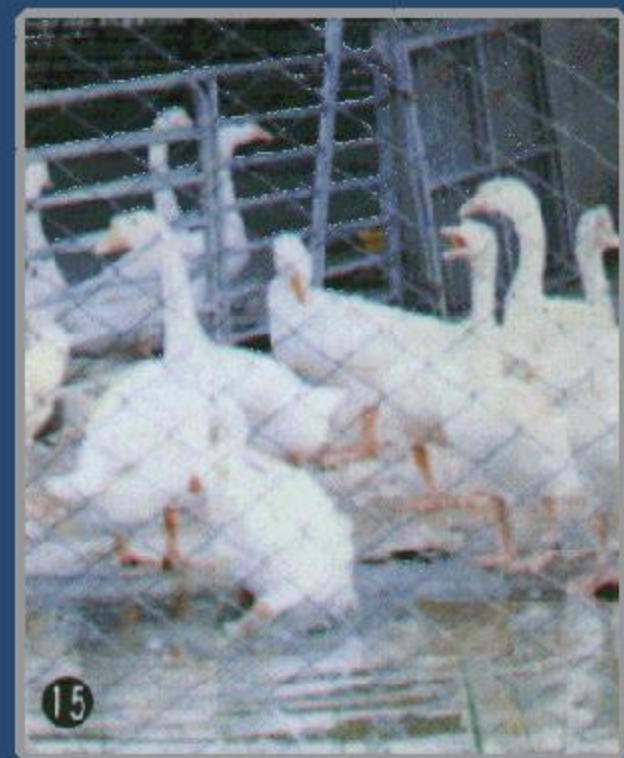
Alert behavior when frightened or aroused.

White Chinese Goose



Congregate and play in water.

White Chinese Goose



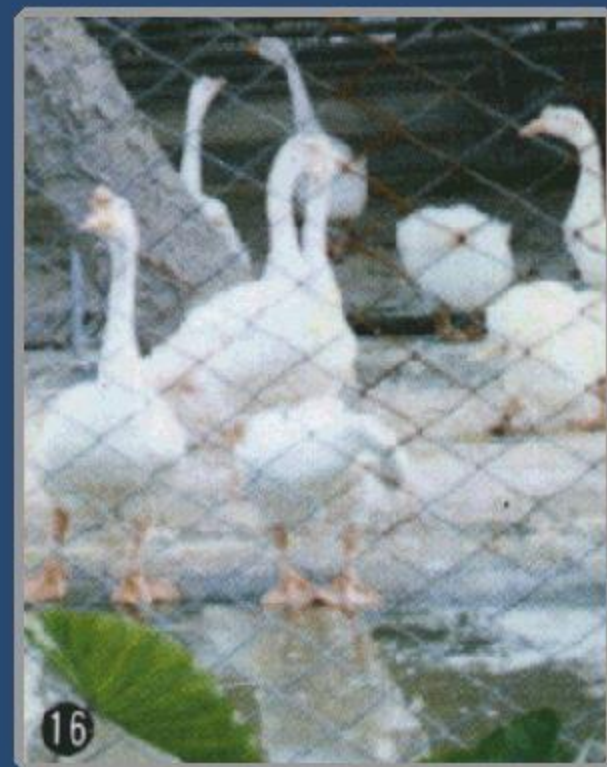
Go to a pond for
exercise and bathing

Mate in water and fixed mates.

White Chinese Goose



Usually raised in open-sided houses with access to a large field.



Go to a pond for exercise and bathing

White Chinese Goose



Most of geese follow a leader when they move away.

White Chinese Goose

Growth Performance

Mean + SE

| | BROWN | WHITE CHINESE GOOSE |
|--------------------|-------|---------------------|
| Body weight at | | |
| at birth | 0.112 | 0.109 Kg |
| 2 weeks old | 0.35 | 0.34 Kg |
| 4 | 1.01 | 0.94 Kg |
| 6 | 1.72 | 1.71 Kg |
| 8 | 2.68 | 2.61 Kg |
| 10 | 3.22 | 3.15 Kg |
| 12 | 3.54 | 3.54 Kg |
| 14 | 3.95 | 3.85 Kg |
| 16 | 4.23 | 3.86 Kg |
| Feed conversion at | | |
| 2 weeks old | 1.61 | 1.62 F/G |
| 4 | 2.19 | 2.30 F/G |
| 6 | 2.60 | 2.51 F/G |
| 8 | 3.00 | 3.22 F/G |
| 10 | 3.45 | 3.73 F/G |
| 12 | 4.26 | 4.29 F/G |
| 14 | 5.65 | 4.89 F/G |
| 16 | 6.86 | 5.99 F/G |

White Chinese Goose

Reproductive Performance

| | BROWN | WHITE CHINESE GOOSE |
|-------------------------|-----------|---------------------|
| Age at first egg | 313 ± 35 | 306 ± 35 days |
| BW at first egg | 4.2 ± 0.6 | 4.9 ± 0.6 Kg |
| Egg weight of first egg | 134 ± 22 | 141 ± 20 g |
| Number of eggs yearly | 20.6 | 28.2 eggs |
| Fertility | 83.08 % | 87.38 % |
| Hatchability | 48.22 % | 44.63 % |

White Chinese Goose

CONFORMATION


MEASUREMENTS

Body length

41.2 ± 3.3

42.2 ± 2.8 cm

Body height

 75.4 ± 6.3

76.3 ± 6.8 cm

Chest width

22.8 ± 1.2

22.5 ± 1.2 cm

White Chinese Goose

Laying Production

One male mates with 4 – 6 females. The laying period begins in September, peaks in December, and ends in April or May of the following year.

White Chinese Goose

Meat Quality

The Chinese goose grows more slowly than exotic Embden, Tufted Roman or Toulouse. Its rearing period is about 16 weeks, which is at least two weeks longer than that of other breeds. However, consumers in Taiwan prefer Chinese geese and are willing to pay up to 80% more for meat, because of the good quality of their meat relative to the taste flavor.