

Deer Fallow Deer

Fawning Season and Fawn Deaths

Fallow deer represent about 14% of deer farmed in New Zealand. Most are farmed in the northern North Island, where large wild populations exist.

In recent years, weaning percentages (fawns weaned/does mated) on fallow deer farms in northern regions have been very low (50–70%). Farmers were reluctant to handle stock during the fawning period for fear of does rejecting fawns. So the problem was largely undefined, in terms of whether it involved doe fertility or fawn mortality, or both factors.

This AgLink presents preliminary results of the 1980/81 fawning season for 3 farms in the Waikato and Bay of Plenty.

Fawns were tagged and weighed within 24 hours of birth. Dead fawns were examined by the Animal Health Laboratory at Ruakura. Surgical gloves were always used when handling fawns, to prevent alarming does with human odour. New-born fawns were not handled until they were dry (about 4 hours after birth).

Fawning success

On the 3 farms, 182 mixed-age does and 9 yearling does (first fawners) were single-sire mated in 1980 (Table 1). These produced 139 fawns. The average fawning percentage (fawns born/hinds mated) was 73% (range 67–81%). This is about 18% lower than the average calving percentage for farmed Red deer.

Table 1: Fawning statistics of three northern Fallow deer farms.

| | Does | Fawns born (%) | Fawn deaths (%) | Weaning % | Average male birth weight | Average female birth weight |
|--------|------|----------------|-----------------|-----------|---------------------------|-----------------------------|
| Farm 1 | 108 | 72 (66.7) | 14 (19.4) | 53.7 | 4.1 | 3.8 |
| Farm 2 | 69 | 56 (81.2) | 11 (19.8) | 65.2 | 4.4 | 4.0 |
| Farm 3 | 14 | 11 (78.6) | 2 (18.2) | 64.3 | 4.8 | 3.8 |
| | 191 | 139 (72.8) | 27 (19.4) | 58.6 | 4.2 | 3.9 |

Fawning seasons

Most births (83%) occurred in the first two weeks of December (Fig. 1). No fawns were born earlier than December. But the timing of fawning varies around New Zealand. In Northland, fawning starts about 2 weeks earlier than in the Waikato/Bay of Plenty.

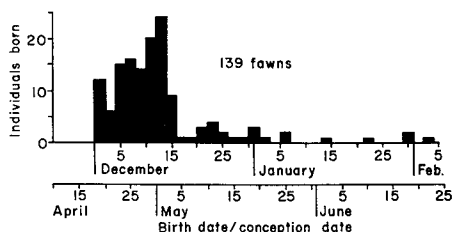


Fig. 1: Fallow deer birth and conception dates from 3 farms, 1980/81.

Rut activity in the Waikato/Bay of Plenty peaks towards the end of April.

Birth weights

Fallow fawn birth weights ranged from 2.4–5.6 kg. Males were about 10% heavier than females (Fig. 2). The average male weight was 4.2 kg, average female weight 3.9 kg.

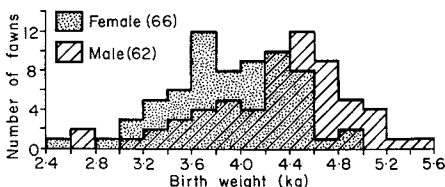


Fig. 2: Fallow fawn birth weights.

Fawn deaths

Pre-weaning fawn death rates were 18–20% on all 3 farms (Table 2). This death rate is about twice that of farmed Red deer.

Dam rejection due to handling fawns at an early age was low and may reflect that does on all three farms were well settled and accustomed to human contact. Only two deaths (1.5% of all fawns born) were possibly due to handling. These fawns displayed starvation/dehydration symptoms.

Infection caused five deaths. Two of these were due to infection of the ear tag site. Both fawns were tagged 30–40 days previously and the infection occurred only on Farm 1. Although the infection may have been induced by extremely humid weather conditions and deteriorating pasture, it illustrates that care must be taken to sterilise tags and equipment.

Fence deaths accounted for the largest proportion of losses. Standard 150 mm deer mesh presents a hazard to Fallow fawns which readily attempt to jump through. Hang-ups are inevitable and usually fatal. Farm 1 did not have this problem as it had a smaller gauge mesh.

Subsidiary wires along the lower levels of the standard mesh were used at Farm 2 but did not prevent fence deaths. Chicken mesh around fawning paddock fences may overcome this problem.

Perinatal deaths: Six fawns were considered inviable at birth, either as a result of being undersized or damaged due to birth difficulties (dystocia). These fawns, characteristically, showed no signs of having walked, suckled, or in some cases breathed.

Fawns less than 3 kg suffered higher mortality (73%) than heavier fawns (18%). Fawns born at 1.8–2.7 kg probably have little chance of survival as they are too weak to suckle. Undersized fawns accounted for 40% of fawn mortality in an overseas study of Fallow deer.

74% of fawn deaths occurred within the first week of birth, after which survival was greatly increased. Any deaths as a result of fawn inviability and mismothering will occur within the first few days of birth.

Fawn mortality in the older age groups often related to misadventure and isolated infections.

Two does died within 48 hours of fawning. Gross liver lesions in both indicated damage characteristic of past sporidesmin (facial eczema toxin) intoxication.

Table 2: Causes of fawn deaths.

| | | <i>Number of deaths</i> | <i>% of total deaths</i> |
|-----------------------|----------------------|-------------------------|--------------------------|
| Misadventure (fences) | | 10 | 37 |
| Perinatal | — dystocia | 3 | 11 |
| | — undersized | 3 | 11 |
| Infection | — pneumonia | 2 | 7 |
| | — diarrhoea | 1 | 4 |
| | — tag site infection | 2 | 7 |
| Mismothering | — dam death | 2 | 7 |
| | — poor mothering | 1 | 4 |
| | — handling rejection | 2 | 7 |
| Unexplained | | 1 | 4 |

Conclusions

- Fawning percentages between 67–81% for Fallow deer was low, compared with Red deer.
- Pre-weaning fawn mortality of 19% was high.
- Deaths in fences accounted for 37% of all fawn deaths.
- Inviabile fawns accounted for another 22% of all fawn deaths.
- The median fawning date was December 12 and 93% of fawns were born in that month.
- Male fawns were 8–10% heavier than female fawns at birth.
- Heavier fawns showed increased survival, as did fawns older than one week.

G. W. Asher
 Scientist
 Research Division
 Ruakura Animal Research Station

L. J. Howell, R. Ellison
 Veterinary Officer
 Animal Health Division
 Ruakura Animal Health Laboratory



M. Langridge
 Technical Officer
 Research Division
 Ruakura Animal Research Station