

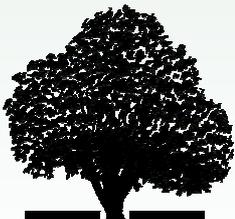
**Between Sheds Migration.**  
**To establish whether, and if they do how far birds**  
**migrate between field sheds on the Sheepdrove**  
**Organic Farm silvo-poultry production system.**

**Final Report**  
**March 2004.**

**Sheepdrove**



**Organic Farm**



**ELM FARM**  
**RESEARCH CENTRE**

**Between Sheds Migration.**  
**To establish whether and if they do how far birds migrate between field sheds on the Sheepdrove Organic Farm silvo-poultry production system.**

**Vanessa Pegg & Bruce Pearce.**

**Abstract.**

1. Sheepdrove Organic Farm was concerned about the possibility of birds of different ages mixing within their silvo-poultry system resulting in variation in the bird weights at depletion. A trial was established to investigate whether birds did migrate and if so how many and how far.
2. 1159 three-week-old birds were marked and introduced into one of two cohort sheds (Shed 6 of 5 & 6) within the SOF system. Five, six and seven weeks later sheds in the vicinity of the original shed were examined to establish whether marked birds had migrated into them, the processing line was also monitored for any birds that may have been missed in the field.
3. Over 80 *per cent* of the marked birds were found in their original shed with a further 10 *per cent* found in the cohort shed, the remaining 10%, 120 birds, were unaccounted for.
4. Of the 1039 birds that reached depletion 99% were found in the cohort sheds (Sheds 5 & 6).
5. Birds do migrate between sheds on the SOF poultry production system. However, between batches the migration is negligible (less than 1 *per cent*) and would have no impact on production.

## **Objective.**

6. The objective of the trial was;
  - 6.1. To establish whether birds migrate between the field sheds during the 7-week field section of the Sheepdrove Organic Farm silvo-poultry 10-week production system.
7. Having established that migration takes place, the study investigated;
  - 7.1. How far the birds migrate from their original field shed.
  - 7.2. How many migrate from their original shed.
  - 7.3. Do they only migrate down hill?

## **Background.**

8. There have been discrepancies in bird numbers and shed record numbers at depletion in the Sheepdrove Organic Farm (SOF) silvo-poultry production system during the summer of 2003. It was thought that this may be due to birds migrating from their original field sheds into other sheds within the system.
9. If this were happening it could account for some of the variation in the birds weight ranges. The lighter birds may be younger birds migrating into the sheds that were due for depletion, and the larger birds may be older ones that have migrated and so missed depletion therefore staying in the production system longer.

## **Methods.**

10. A sample of 1159 birds were leg ringed and back feathers were colour sprayed for identification prior to being moved to a field shed at three weeks old. These birds were placed in a shed in the middle of the production system with four sheds above and three below. The birds in the houses above the trial shed were older than the trial birds and those in the houses below are younger.
11. Observations were made 5 and 6 weeks later (production weeks 8 and 9) for marked and ringed birds in the houses surrounding the trial sheds.
12. The day prior to depletion of the trial and cohort sheds (production week 10 ) the birds were closed into the sheds to allow data to be collected. Each bird was checked for colour marking and each leg ring found was removed and numbers of marked birds were recorded.
13. Observations were made in the processing plant in the following weeks for any marked birds that may have migrated down hill into the “younger” sheds and so extended their time in the production system.

## **Results.**

14. Table 1 shows the numbers and positions of birds at the start and the end of the trial.
15. Of the 1159 birds initially placed into shed 6 1039 were retrieved at the end of the trial, 120 were unaccounted for.

**Table 1: Original and final position of birds in the migration trial on SOF.**

Original Position	Where Found
Shed 2	Shed 2
Shed 1	Shed 1      1
Shed 4	Shed 4
Shed 3	Shed 3
Shed 6      1159	Shed 6      928
Shed 5	Shed 5      106
Shed 8	Shed 8      1
Shed 7	Shed 7      3

**Discussion.**

16. The study shows that birds do migrate between sheds but that it is not likely to have an impact on production, as very little migration occurs between sheds at different stages in the production system, i.e. ‘younger’ or ‘older’ sheds.

16.1. Eighty *per cent* of the birds were retrieved from the original shed they were placed in. A further 10 *per cent* were found in the cohort house that was depleted in the same week. The missing 10% (approximately 120 birds) may have been culled due to illness or predated by rats or raptors during the field production period.

16.2. Of the 1039 birds (90% of the original 1159) that reached depletion 99% were found in the cohort sheds (Sheds 5 & 6).

16.3. This study showed bird migration up, and down, hill was possible but was shown to be negligible.

## **Conclusions.**

17. It is clear that birds do migrate between sheds on the SOF poultry production system. However, between batches the migration is negligible (less than 1 per cent) and would have no impact on production.

e:\work\sheepdrove\poultry\migration\migration final report.doc  
05/03/04 09:57