



# The Power of Information - Shearwell Data

|                              |   |
|------------------------------|---|
| Reduce product variability   | ✓ |
| Improve product quality      | ✓ |
| Streamline administration    | ✓ |
| Reduce handling and movement | ✓ |
| Make better use of staff     | ✓ |
| Reduce damage and theft      | ✓ |

The power and value of information is the last great untapped agricultural commodity

Richard Webber, Managing Director Shearwell Data Ltd

The aim of Shearwell Data Ltd is to apply the latest technologies to unlock the power of data for its farming and processor customers.

Founded in 1990, the company provides a range of products to help identify animals, ranging from basic ear tags to state of the art electronic systems.

The data company has grown out of Richard Webber's sheep farming business and is sited on his farm in Exmoor. The farm has a sheep flock of 1200 breeding ewes and a small suckler cow herd. Through Shearwell, Webber is therefore commercialising products that have been proven on his own farm.

This case study deals with one aspect of Shearwell - animal identification in the sheep sector and the financial benefits it can bring.

## Electronic Identification

Shearwell Data has long been a provider of tags for sheep (and other species). These have evolved and improved over the years. Their identification chips are available by implant, ruminal bolus or more recently, within ear tags.

Produced in partnership with



Red Meat

Case  
Study

Sept  
2003

Each chip stores a unique 16-digit reference number that remains with the animal for life. This number can be read and captured on a static or handheld recorder, keeping a record of the animal's location. This removes the risk of a transcription (rewriting) error and is faster than a manual method.



The ID number becomes the linchpin of a database that stores information such as weighing, calving, lambing and medical treatments.

Most of the data collection can be automated. For example, a reader can be built into the weighcrush to pick up an animal ID. The weight is then automatically sent to the database.

In recent trials:

- 1 134 sheep were weighed and recorded manually in one hour
- 1 compared with 330 sheep using an electronic tag and handheld reader
- 1 and 590 sheep using a bolus and static reader.

The cost of data capture was reduced from 23p per sheep using manual input to 3p per sheep using the bolus method (based on a wage rate of £6 per hour).





The method also reduces the need for animal handling, stress to the animal and scope for error.

Armed with this information, the farmer can begin to improve business performance, based on sound analysis.

### Information Flow

Although the ear tag is slower to read than a bolus chip, it does provide an easy way for abattoirs to feed back performance to farmers about each sheep.

The Shearwell microchip can be read electronically on the kill line, transferred to the abattoir's central system and relayed back to the farmer.

Shearwell have tested this approach with the abattoir - Lloyd Maunder. It helped Richard Webber on his own farm to pinpoint the breeding animals whose progeny deliver the best financial returns. Now he wants more farmers to benefit from this approach.

The table below is one of the reports available. It shows the performance of an individual ram by listing kill sheet data from his progeny.



|  |  |
|--|--|
| Grade Report by Sire for<br>01/01/2002 - 01/06/02              | Owner: Richard Webber<br>Holding Number: 36/104/0087<br>Holding Name: Putham |
| Breed: Texel Purchased from Home-bred<br>Ram Tag: ZG0124 00816 | Date Printed: 24/06/2003   |

| Ewe Tag      | Lamb Tag | Dead Weight | Grade | Price Elapsed | Days | Pence/Kg |
|--------------|----------|-------------|-------|---------------|------|----------|
| ZG0124 80611 | 20072    | 20.0        | U2    | £47.78        | 330  | 245.03   |
| ZG0124 80611 | 20073    | 23.0        | U2    | £45.35        | 264  | 201.56   |
| ZG0124 70618 | 20191    | 21.0        | E3L   | £55.35        | 357  | 270.00   |
| ZG0124 70610 | 20212    | 22.0        | U3L   | £56.70        | 355  | 263.72   |
| ZG0124 70610 | 20213    | 20.0        | E3L   | £53.63        | 365  | 275.03   |
| ZG0124 90818 | 20234    | 19.0        | R2    | £49.03        | 365  | 265.03   |
| ZG0124 90818 | 20235    | 24.0        | U3L   | £50.60        | 355  | 215.32   |
| ZG0124 00969 | 20236    | 20.0        | U2    | £51.00        | 268  | 255.00   |
| ZG0124 90802 | 20374    | 20.0        | U3L   | £51.68        | 332  | 265.03   |
| ZG0124 80630 | 20393    | 22.0        | U2    | £56.70        | 349  | 263.72   |
| ZG0124 80629 | 20423    | 20.0        | E3L   | £48.75        | 274  | 250.00   |
| ZG0124 80608 | 20476    | 18.0        | R2    | £41.13        | 316  | 235.03   |
| ZG0124 90790 | 20510    | 18.0        | U2    | £43.75        | 163  | 250.00   |
| ZG0124 90790 | 20511    | 20.0        | U2    | £48.75        | 163  | 250.00   |
| ZG0124 90790 | 20512    | 21.0        | E3L   | £55.35        | 345  | 270.00   |
| ZG0124 80625 | 20516    | 20.0        | R2    | £50.70        | 345  | 260.00   |
| ZG0124 80625 | 20517    | 21.0        | U2    | £52.50        | 283  | 250.00   |
| ZG0124 70663 | 20536    | 19.0        | U3L   | £50.35        | 327  | 265.00   |
| ZG0124 70663 | 20537    | 22.0        | E3L   | £56.70        | 345  | 263.72   |
| ZG0124 70560 | 20569    | 20.0        | U2    | £49.73        | 256  | 255.03   |
| ZG0124 70560 | 20570    | 24.0        | U3L   | £46.40        | 297  | 193.33   |
| ZG0124 7782  | 20619    | 18.0        | R2    | £42.00        | 160  | 240.00   |
| ZG0124 70634 | 20704    | 21.0        | U3L   | £51.45        | 309  | 245.00   |
| ZG0124 70634 | 20705    | 20.0        | U3H   | £49.73        | 322  | 255.03   |
| ZG0124 70625 | 20796    | 22.0        | U2    | £51.45        | 237  | 239.30   |

Information from the abattoir can be sent straight to the farmer s management system. This particular table details performance of an individual ram. It allows the farmer to know which females the ram has mated with and the performance of the progeny.

The lamb s weight, carcase grade, gross return, price per kilo and the number of days to slaughter are shown in this particular report.

Farmers can use it both to inform the purchase of rams and the best feeding system.



## Conclusions

Information technology is one of the means to create a Leaner, more efficient chain. It can automate laborious tasks and so improve productivity directly, but even more significantly it can increase the amount and speed the flow of information along the chain.

Detailed feedback from the abattoir is essential for farmers in their quest to improve quality, reduce variability and consistently achieve the target specification. If electronic tags can help abattoirs to provide this service at low cost, then all parties can benefit.

