WETHER COMPETITIONS AS A TOOL FOR SHEEP SELECTION EXCELLENCE

*R.N.D. REID**

The design and conduct of production competitions was reviewed by Jones (1980). The minimum number of sheep required to achieve any meaningful comparison was given as fifteen. Random allocation of animals by each competitor was also seen as being critical.

Despite their deficiencies, five wether competitions conducted in Tasmania over the past four years have been useful tools in the extension of sheep selection techniques.

At least 15 wethers *per* entrant, chosen at random, were run under common management conditions in eah competition. Comeback sheep of 21-23 micron style were the main types of entry.

Midside wool samples were taken prior to shearing to enable each fleece to be valued at shearing. Greasy fleece weights were recorded each year along with off-shears live weights.

The repeatabilities of greasy and clean fleece weight based on phenotypic correlations between two, three and four year old records *were* in the range 0.5 to 0.8. This was used to highlight the problem of deciding on age of selecting replacement sheep. This agrees with findings in Polwarth sheep reported by Reid (1987). A similar imperfect repeatability was apparent in fibre diameter with age. Although season and age influenced individual diameter records, the correlations between records were high at 0.6 to 0.8.

An aspect of great interest, was the frequent poor phenotypic correlation between greasy wool weight and off-shears live weight within the one year. In many instances within a mob, the relationship was zero, indicating that within a mob the biggest sheep do not always cut the most wool. From other data (Reid unpubl.), Polwarth sheep frequently have a poor relationship between wool weight and live weight. This underlines the importance of using some production recording as an aid to sheep election. Size of sheep can frequently be misleading in selecting replacement sheep in a wool flock.

Wether competitions create an environment where producers are able to study the records of a group of sheep over a number of years. This is useful in discussing selection objectives and is a valuable extension tool towards improved selection efficiency.

JONES, L.P. (1980). SCA Tech. Series No. 6.
REID, R.N.D. (1987). In "Merino Improvement Programs in Australia", p.181, editor B.J. McGuirk. (AWC: Maryborough).

---

* *Department of Primary Industry, New Norfolk, Tas. 7140.*