

Ewe Productivity: A new trait being researched by Sheep Ireland





Proposed method of evaluating this Trait

• For each year a **ewe lambs down** she receives a **score of 1**. If the ewe has **no lambing event** recorded and wasn't recorded as being dead, she will get the **probability score** of having a lamb in that year, based on her breed.

- In the Image opposite, 3 scenarios are outlined.
- Ewe 1, 2 & 3 have **death dates recorded**. They have had a lambing recorded for each year up to death. As all the necessary info is recorded, its is easy to evaluate the trait for these ewes.
- Ewe 4 has a death date recorded after year 6, but she has **no lambing event recorded** in Year 3 or 5. We don't know if she had a lamb in these years.

She will get a probability score for these years.
Ewe 5 is alive and has lambed in year 1. We don't know if she will lamb again. Tricky to evaluate.

Defining the Dataset

To analyse the data some rules were applied

- All lambing data was retrieved from the Sheep Ireland Database
- Only ewes aged between 1 and 10 were kept.
- Ewes were kept if their first lambing event recorded had taken place when the ewe was between 1 and 2.5 years old
- Ewes had to have consecutive lambing events (no gap year) and a maximum of 10 lambings were retained
- Breeds with more than 250 ewes were retained



in the analysis (96385 ewes from 16 breeds).

How are we going to produce more accurate Ewe Productivity Evaluations?

2	3	4	5	б	7	8	9	1
	No. of	Conse	cutive L	ambing	g Event	S		

Figure 2. Overall Ewe Lambing Career.

- We need more data!! As can be seen from Image 1, recording all lambing events and death reasons is vital for this trait
- At present, the number of reasons for death recorded on the Sheep Ireland Database is small.
- New web screens have been developed to allow breeders to more accurately record the reasons for death.
- If ewes were slaughtered, breeders can record the reasons for this such as Old Age, Prolapse, Lameness etc.
- Farmers also have the ability to record the reasons for on farm deaths, such as Pneumonia, died giving birth, Liver Fluke etc.

Search 2011	O La	ambs (Ewes	Rams) All								
7 animals of 109 anima	ls found, 7 displayed			Carcase F	Records		Reaso	n for Sla	ughter				
Animal	DOB	Sex	Breed	Dead Weight	Grade	Fat	Factory Lamb	Surplus	Lame	Mastitis	Old Age	Barren	Other
IE042576102354G	01-APR- <mark>2011</mark>	F	МС		•	•							Hard Lambing
IE042576102334E	01-APR- <mark>2011</mark>	F	MC		•	•							Abortion •
IE042576102336J	01-APR- <mark>2011</mark>	F	MC		•	•							Prolapse •

Death Date		
30-NOV-2018		
Select death reason(s)		
General	Lambing Related	Vet Diagnosed Disease
Mastitis	Giving Birth	Septicaemia (Blood Poisoning)
Vaginal Prolapse		 Clostridia
Rectal Prolapse		Coccidiosis
Pneumonia		Nematodirus (Worms)
Scour		Listeriosis
Tetany		Digestive System Infections
Calcium Deficiency/Milk Fever		Respiratory Infections
Hypothermia		Liver Disease (Fluke)
Post Abortion		Digestive Tract Conditions
Laryngeal Chondritis/Breathing Issues		Reproductive Tract Conditions
Misadventure - e.g. Fox/Dog/Drowning		Cardiac/Circulatory Conditions
Died on Back		Urinary Tract Conditions
Injury/Hurt		Stomach Ulcer/Ruptured Ulcer
Old Age		Musculoskeletal Issues
Other		 Hereditary and Developmental Abnormality (Deformity)
		Poisoning
Save		

IE042576102332A	01-APR- <mark>2011</mark>	F	MC	•				Damage to Udder/Teats •	
IE042576102329E	01-APR- <mark>2011</mark>	F	МС	•				Hard Lambing •	
IE042576102328C	01-APR- <mark>2011</mark>	F	MC	•				Bad Milk Ability •	
IE042576102361B	01-APR- <mark>2011</mark>	F	MC	•				Bad Mothering Ability •	Sa

Figure 3. Screen for recording info on ewes that are slaughtered.

Figure 4. Screen for recording reasons for on farm deaths.

Conclusion

The research so far shows that ewe productivity is a trait that can be developed further and with the collection of more data around death dates and death reasons for ewes, breeders could be able to select bloodlines that will improve the ewe productivity of their flock.



Our Mission Statement:

To achieve the greatest possible improvement, from genetic and other factors in the profitability of the national sheep flock for the benefit of Irish Sheep Farmers and the Sheep Industry



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