Flock book discussion meeting – post release

18th August 2009

NATIONAL DEVELOPMENT PLAN

Agenda

- Indexes
  - How we decided on indexes
  - From new data to new indexes
- The economics
  - Price assumptions & example of EV calculation
    - Example of new index (production)
- Summary and results
- Where to from here
- Flock book opportunities
- Open floor – questions and comments

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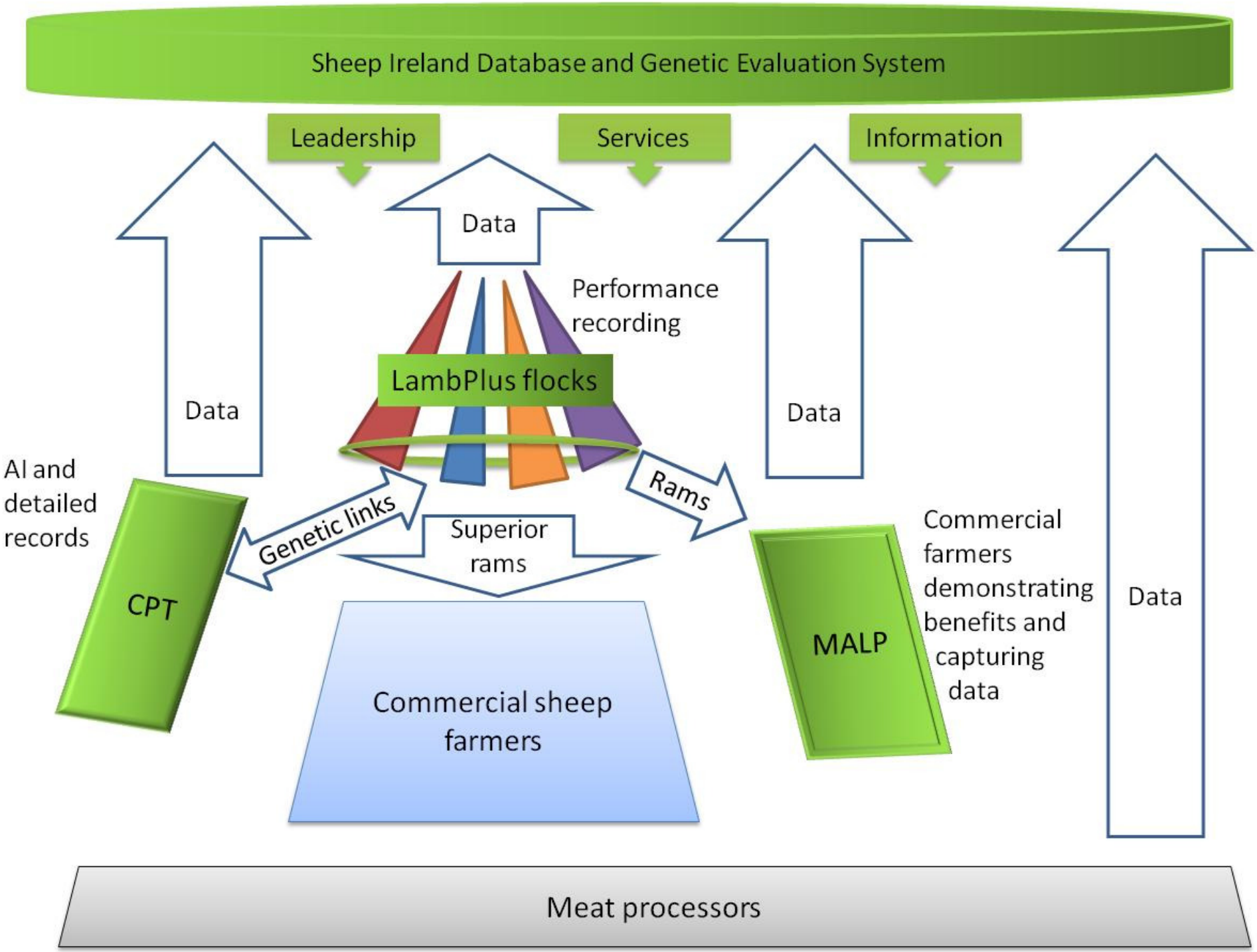
Sheep Ireland Database and Genetic Evaluation System
Leadership
Services
Information
Data
Performance recording
LambPlus flocks
Data
Data
Data
AI and detailed records
Genetic links
Rams
Superior rams
CPT
Commercial sheep farmers
MALP
Commercial farmers demonstrating benefits and capturing data
Meat processors

Indexes

- **GOAL: Increase profitability**
  - Many traits contribute to profitability
  - Develop indexes to allow selection on multiple traits
  - Index = group of traits weighted by **€** economic importance (economic weight)
- **Based on same profit principles as dairy EBI & beef €uro-Star systems**
  - Where impact of genetics has escalated dramatically over past decade

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How we decided on the Indexes

- **Feedback from September meeting**
  - Decided on traits and indexes
  - Range of terminal and maternal indexes
  - One overall index
- **Met with pedigree breeders**
- **Met with commercial ram buyers**
- **Now have indexes released**
- **Huge progress!**

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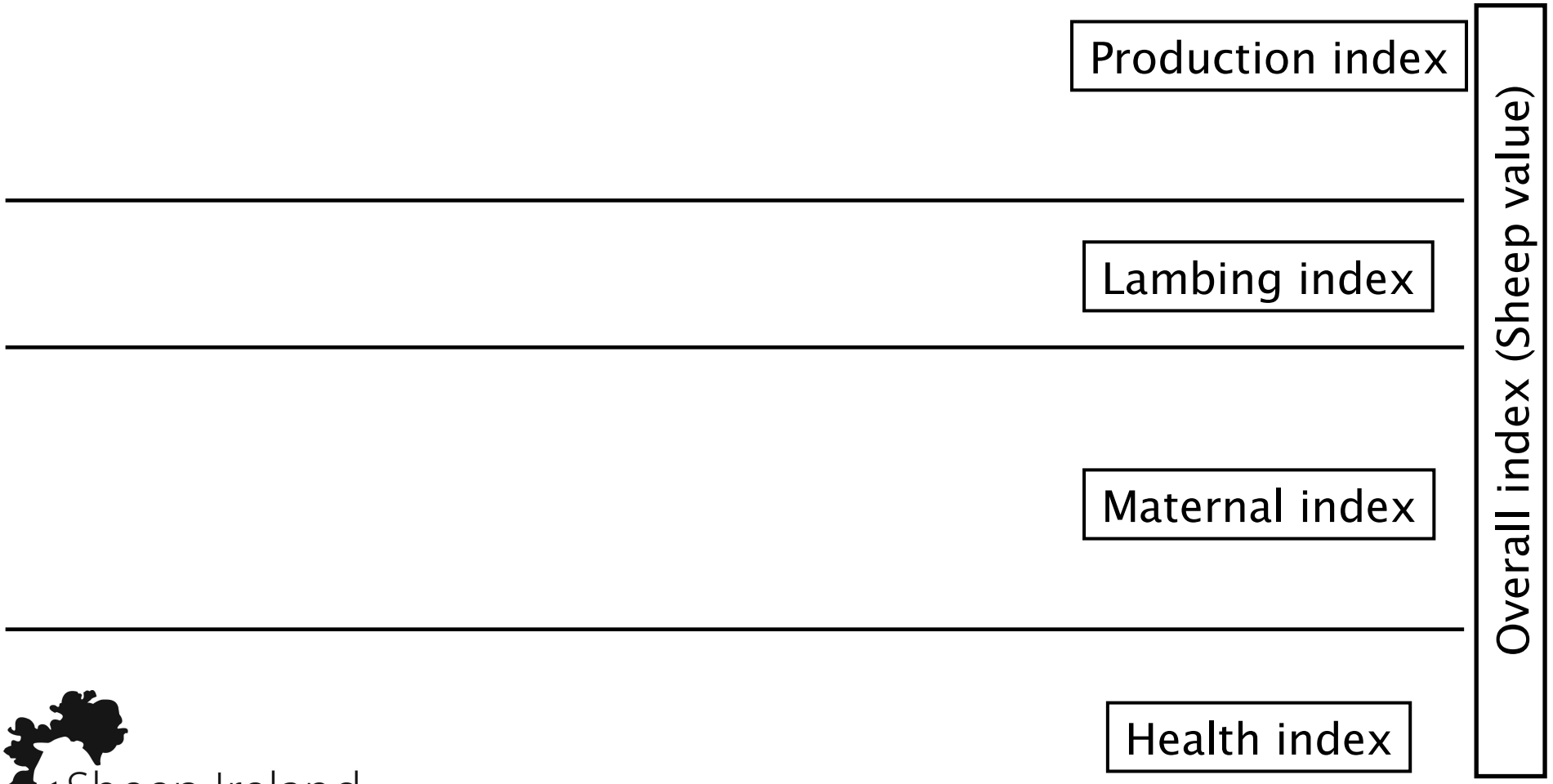
New data to new indexes



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New data to new indexes

Days to slaughter
Carcase conformation score
Carcase fat score

Production index

Lamb survival
Lambing ease

Lambing index

Ewe effect on
- Days to slaughter
- Lamb survival
- Lambing ease

Ewe mature weight
Litter size

Maternal index

Faecal egg count
Footrot

Health index

Overall index (Sheep value)

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New data to new indexes

40 day weight
Weaning weight
Scan live weight
Weight at first draft
Ultrasonic muscle depth
Ultrasonic fat depth
Factory records

Days to slaughter
Carcase conformation score
Carcase fat score

Production index

Lamb survival
Lambing ease

Lamb survival
Lambing ease

Lambing index

Lamb weights
Ewe weights
Litter size
Lamb survival
Lambing ease

Ewe effect on
- Days to slaughter
- Lamb survival
- Lambing ease

Ewe mature weight
Litter size

Maternal index

Faecal egg count
Footrot

Health index

Overall index (Sheep value)

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The Economics

- Industry price assumption
- Economic values to economic weights
- Example of economic value of days to slaughter in the Production Index
  - How are the economic values calculated
- Trait units – **€ per lamb born per unit change in the trait**

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Price assumptions - input

- Commercial farm perspective
- Feed costs (Teagasc)
  - Spring €0.12/ kgDM
  - Summer/ Autumn €0.14/ kgDM
  - Winter €0.20/ kgDM
- Cost of replacement €180
  - To 2 years old
  - Feed/ housing/ health/ cull salvage

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Price assumptions - output

- Lamb carcase price (12 year average)
  - €3.48 per kg carcase weight
- Cull ewe carcase price
  - €1.60 per kg carcase weight

- **<u>Think profit (output – input)</u>**

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Economic value to Economic weight

- Economic value of trait adjusted
  - Differences in timing and frequency of expression
  - Progeny get half genes of ram
  - Some progeny kept as replacements
  - Some slaughtered
  - Have to wait to get rams genes expressed in daughters
- To give economic weight

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Days to slaughter

- Economic value **€0.20/ day/ lamb born**
- Faster growth - sell earlier to get seasonal premium and save feed
- Made up of:
  - Seasonal premium for faster growth rate (**€0.06**)
  - Feed cost savings for earlier slaughter (**€0.14**)
- **Economic weight €0.093**

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How to get to € Indexes
Production Index example

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Example new index

Figures – Production Index

Trait	Breeding Value	Economic Weight	€uro-STAR	Rel. %
DTS	-2.813	**-€0.093**	**€0.26**	**74%**
CONF	0.125	**€1.402**	**€0.18**	**54%**
FAT SC	0.009	**-€2.892**	**-€0.03**	**51%**
PRODUCTION INDEX			**€0.41**	**60%**

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Summary

- Genetic Evaluation system developed
- Historic and new data analysed together
- € Indexes available
- Further indexes as more data becomes available
- Feedback on economic values and indexes is critical to their success

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The results

- More accurate evaluation of animals' genetic merit
- Economic indexes relating to profit per lamb born!
- 4 indices where improvements can be made
- Opportunities for breeds to show strengths for different traits
- Where are your breeds' strengths?

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Where to from here

- Collection of carcase data from MALP lambs born this season
- IMPORTANT FOCUS THIS MATING: To link Pedigree and MALP with recorded rams used in same year
- Central Progeny Test using laparoscopic AI and intense recording
  - Highly linked pedigree rams

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Where to from here

- User-friendly and cost effective data capture
- Single evaluation
  - Using data from all sources
  - Valid and robust comparison of animals across flock and breed
- Development of new recording screens
- Promotion and usage of new indices
- Development of flock book services

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Flock Book Services

- Flock Book Management System – web based
- Animal Search Tool
    - Multiple ID search
    - Individual animal detail maintenance
    - Individual Statistics (Indexes)
    - Pedigree & certificates
    - Movement history
    - Registered rams and ewes

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Flock Book Services

- Flock Book Management System – web based
  - Customer Search Tool
    - Individual customer detail management
    - Flock details
    - Linked with flock book website
    - Pedigree registrations by year by breeder

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Flock Book Services

- Flock Book Management System – web based
  - Reports
    - Registration and Birth report
    - Sire summaries (offspring numbers etc)
    - Stock reconciliation reports
    - Pedigree reports

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Flock Book Services

- Administration support
  - Membership
  - Billing
  - Web site

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Questions and Comments

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