





2019 BIF Symposium, Emerging Technologies, Brookings, S.D.

WHY DO WE NEED SELECTION INDEXES?

"There is no easily accessible, objective way for breeders, particularly breeders in the beef and sheep industries where ownership is diverse and production environments vary a great deal, to use these predictions intelligently."

-- R. M. Bourdon, 1998

SELECTION INDEX IN A NUTSHELL

- · Tool to enable informed multiple-trait selection
- Based on:
- Breeding objectives
- Economic parametersRelationships among traits
- Population (herd) means
- Designed to improve commercial level profitability
- Not to be confused with breed (organization) specified trait goals
- New (~ 10 years) to the beef industry but "old hat" to other industries

GENERAL FORM

b=P-IGv

GENERAL FORM FOR EPD (OR BREEDING VALUE)

b=G¹¹G₁₂v

GENERAL FORM WHEN GOAL=CRITERIA

b=v

• Rarely is this the case

• We make assumptions to force this case

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THANK YOU

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