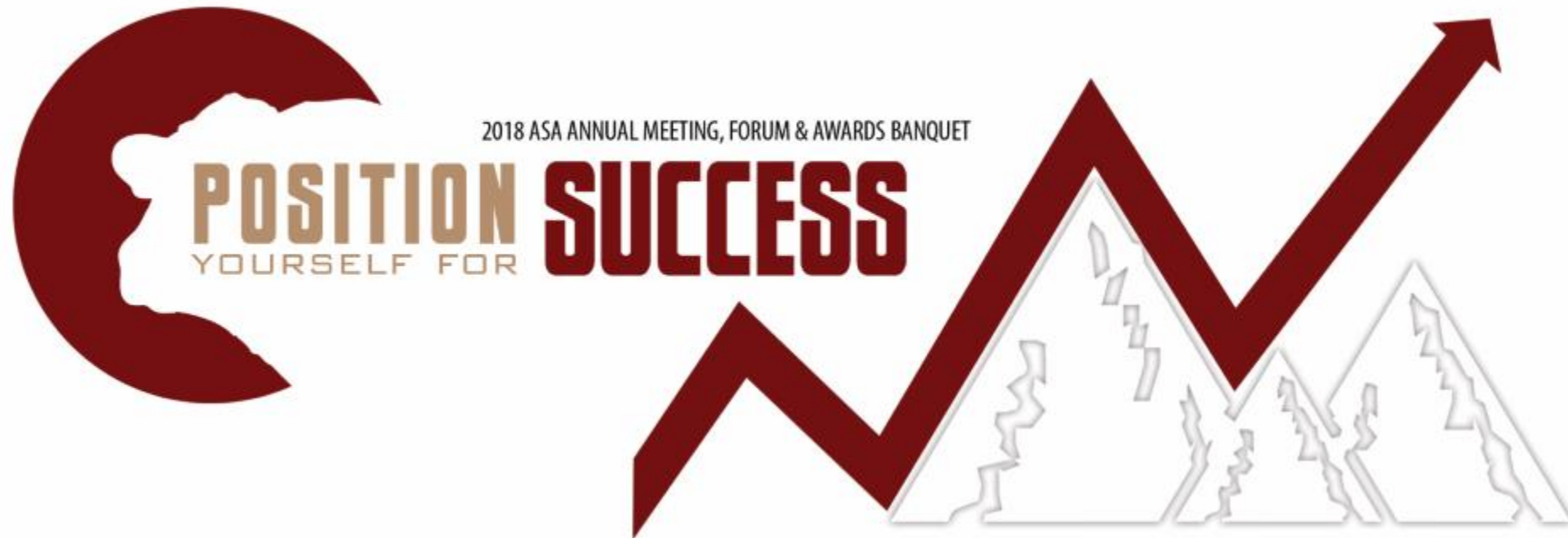


New Market Transformations



We Are Living in the Era of Disruption

New Market Transformations

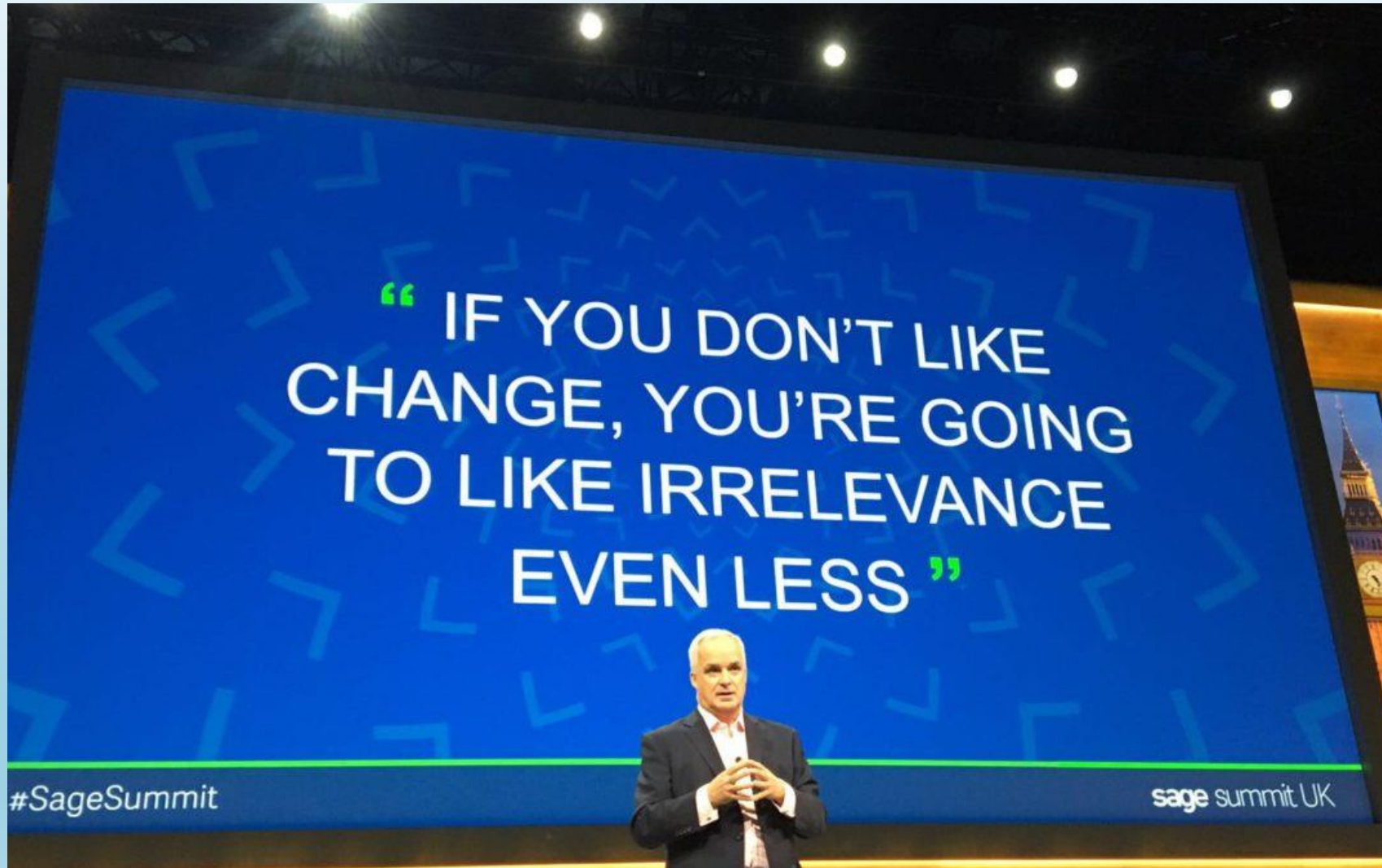


Disruptions

- Technology
 - Information -Block Chain
 - DNA
- Economic
- Social
- Political



Changes in Selection Technologies



New Market Transformations



The Challenge of Change

"When written in Chinese the word crisis is composed of two characters. One represents danger, and the other represents opportunity."

- John F. Kennedy

Change and the Rate Of Change

- We have always been in a constant state of evolution
- Change rewards those who choose wisely
 - Some changes and technologies are transformational
 - Can we compete if we don't change

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Rate Of Change

- Breakthru Technologies accelerate the rate of change
 - Information Examples
 - Newspapers
 - Telegraph
 - Radio
 - Television
 - Internet
 - Social Media

Macro Changes Headed Our Way

- Consumer Preferences – Consumer is King
- Consumer Demands for Transparency
- Retail and Food Service companies working back into the Production Chain
- Block Chain Technology

Integration Examples Past/Present

- Future Beef – Safeway and Beef Industry Investors
- Iowa Premium – Beef Industry and Sysco Foodservice
- Walmart – Walmart / Premium Pursuits (44 Farms)

Production System Ramifications

More Integrated production systems

- Run along a continuum but have requirements for participation
 - Genetic Requirements
 - Animal Care Requirements
 - Health
 - Production changes
 - Third Party Verifications
- Some Integrated systems are closed systems



Changes in How We Select

- Increased use of Selection Indexes – Seedstock & Commercial
- Increased use of DNA technologies – Seedstock & Commercial
- New Traits with New Phenotypes
- CRISPR – Gene Editing

More Providers for Selection Decisions

- Breed Associations – Will provide but face increased competition
- More Third Party Providers
 - Genetic Companies - PIC
 - DNA Companies
 - Large Seedstock Producers

Changes in What We Select For

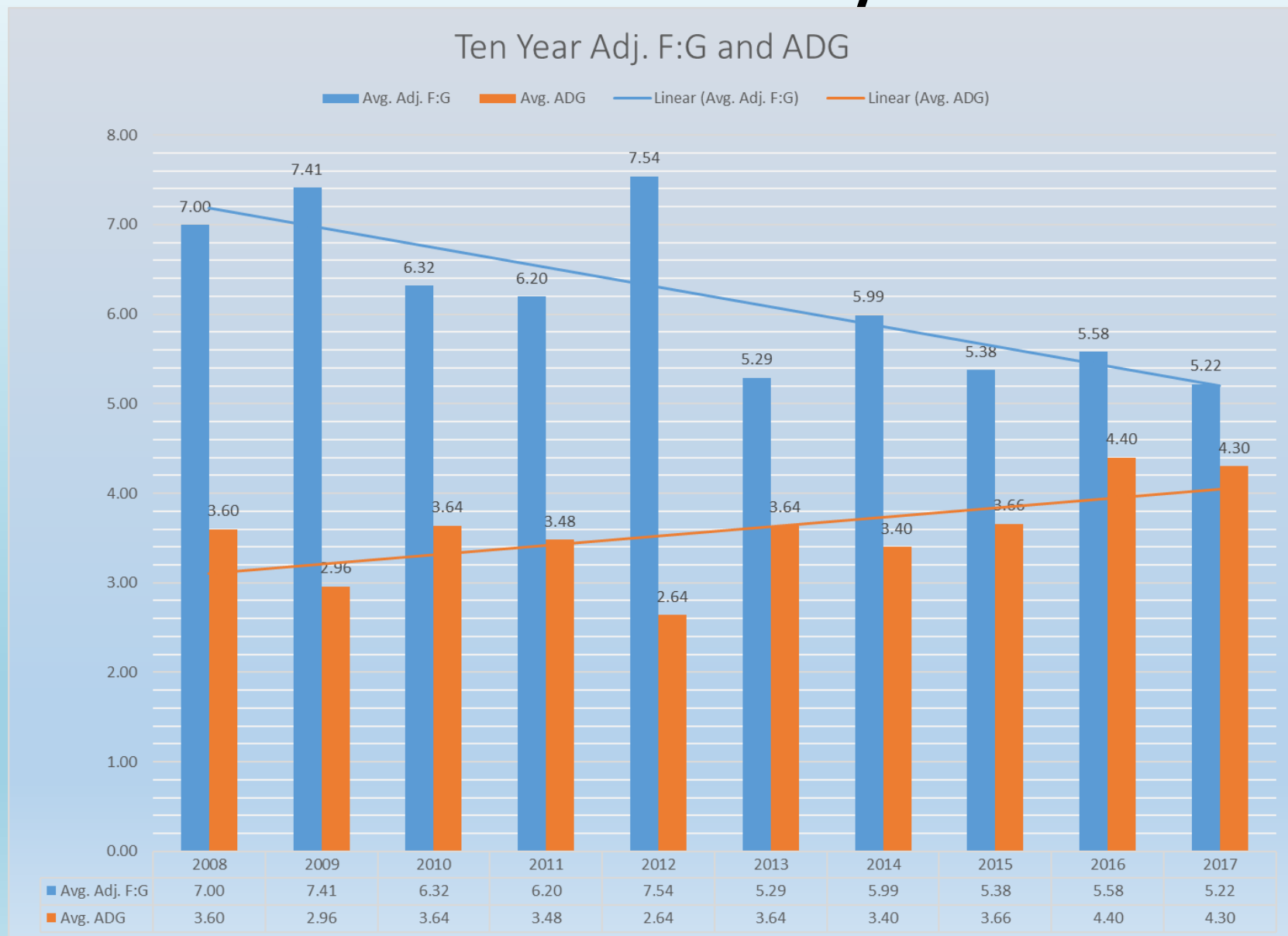
- Structure Traits
 - Feet & Legs
 - Conformation and Soundness
 - Teat & Udder
- Cost of Production Traits
 - Health
 - Productive Life
 - Feed Efficiency



Feed Efficiency

- Cost of Production is always important
- Moderately Heritable (0.39 ± 0.09)
- Many Ways to Analyze
 - Intake
 - RFI
 - RADG
 - F/G

Real World Example



10 Years of Intake Data

- 25% improvement in feed conversion!
- 19% improvement in ADG!
- Days to gain 600 pounds – 167 to 140
- Cost for 600 pounds of gain - \$370.78 to \$276.73
- \$103.55 Less cost!

In Summary

- Change Creates Opportunity
- Forces of Change Impact Everything We Do
- Speed of Change Is Something we have no Control or Choice Over
- We Choose If we are a “Master of Change” or a “Victim of Charge”
- The Impact of Change will be forced upon you, no matter what you do



Our
Choices
Determine
how
Bumpy the
Ride is

Hold On





Because change creates opportunity, when we do it through purpose and awareness, we are working with the fates, and in turn they smile upon us. - Lawren Leo

$$2 + 2 = 5$$



The Power of Heterosis
