

Challenges and Solutions for Today's Producer

Dan Orchard

Sturgeon Valley Fertilizers

Agronomist, CCA, B.Sc.

- 
- Growers demonstrating intensive and knowledgeable management practices expect and appreciate rewards

Current Challenges

- ◆ Weather
- ◆ Insects
- ◆ Disease
- ◆ Perceived varietal shortfalls
- ◆ Reducing Tillage practices
- ◆ Fertilizer prices
- ◆ Weeds

Weather

- Lack of Moisture
- Lack of Heat Units
- Early/late frost
- Excess spring moisture
- 'Sun-burning'
- Cool nights with slow recovery time (Flux)

Weather Solutions

■ Current

- ◆ Earlier maturing varieties, seed later – frost/h.units
- ◆ Semi-dwarf varieties - drought
- ◆ Avoid CPS wheat and barley if in dry cycle – drought

Weather Comments

- Grower's preference for 'new' varieties:
- Drought tolerance
- Earlier maturing – same yield/quality traits
- Frost tolerance

Insect Solutions

■ Current

- ◆ Spray Insecticide
- ◆ Treat Seed
- ◆ Resistant varieties....

Insect Comments

- Possibly the most controversial topic
 - ◆ Environmentally
 - ◆ Agronomically
- Producers/Industry would love to see resistance, particularly when it's bug season
- Cross-breed Rottweiler with LadyBug

Disease

- Seed/Head Diseases

- ◆ Fusarium

- ◆ Ergot

- Root rots

- ◆ Common?

- ◆ Take-all

- Leaf diseases

Disease Solutions

■ Current

- ◆ Fungicides – Foliar and/or Seed Treatments
- ◆ Crop Rotation
- ◆ Variety selection

Disease Comments

- Our current diseases are somewhat manageable using crop rotation, fungicides, and varieties. The diseases we don't have should concern us (Fusarium, rusts, etc)

Adapting to the Adoption of “Zero” Tillage

- Straw management
- Cold Soils
- Fertilizer Placing
- Disease
- Compaction

Accepted Solutions

- Variety selection (semi-dwarf, etc.) – straw/disease
- Blacken soils for some crops – straw/cold soil
- Equipment and Specialty products – Fertilizer management/Compaction

Zero Tillage Comments

- Frost tolerant and/or more vigorous varieties
- Straight-cutting capabilities important
- Darker straw to absorb heat

Fertilizer Prices - Solutions

■ Current

- ◆ Grow crops less demanding
- ◆ Apply less
- ◆ Maximize efficiency

■ Other

- ◆ More nutrient efficient plants – breeding
- ◆ Nitrogen fixation in plants

Grower Comments

- “I don’t really want to see a bunch of GMO type work done that may jeopardize markets, keep our cereals more traditional” – Terry
- “What if they inserted a gene from somewhere so the plant only required half the Nitrogen?” – Dan
- “Well that would be alright!!” - Terry

Variety “Shortfalls”

- Standability and harvestability
- Straw residue
- Consistency
 - ◆ Protein
 - ◆ Color
 - ◆ etc

Varietal Comments

- “I love snowbird, I get close to 50 bushels an acre, good protein, and it stands for me!”
- Don
- “I’ll never grow Snowbird again; it yielded alright (70+bu/ac.) but falls down flat”. -
Gerald

Weeds

- Shift toward perennial weeds with reduced tillage
- Increase in resistance
- Transition of species into new areas
- Control is expensive

Weeds - Solutions

- Current

- ◆ Herbicide timing and selection

- Other

- ◆ More competitive varieties
 - ◆ Allelopathy

Summary

- Producers need to rely on a combination of breeding, management, and equipment advancements to help tackle current challenges
- Weather, insects, and to some degree diseases, are among the most discouraging for growers and others in the industry

Summary

- Varieties for ‘potential’ challenges are at least as important as improving the issues today

- 
- Growers demonstrating intensive and knowledgeable management practices expect and appreciate rewards

Thank-You

- Questions?