Dynamics of triticale growth and quality during the season

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What is triticale?

• Winter cereal
  • Barley
  • Oats
  • Rye
  • Triticale
  • Wheat

• Wheat x rye hybrid
• Used for forage
Major growth stages:

- Seedling
- Tillering
- Jointing
- Boot
- Flowering
- Soft dough
- Grain harvest

Forage harvest

(adapted from dreamstime.com)
Triticale study

- Maricopa Ag Center
- Planted Dec 18, 2019
- 14 varieties
- Measure yield and quality at 7 harvest dates
- Compare average of varieties over time
Forage yield (T/A)

- **Lag**
- **Rapid growth**
- **Plateau**

**Timeline**
- **Feb**
- **Mar**
- **Apr**
- **May**
- **Jun**

**Phases**
- **Tillering**
- **Early jointing**
- **Late jointing**
- **Boot**
- **Heading**
- **Kernel watery**
- **Soft dough**
- **Maturity**

**Notes**
- Rapid growth phase.
- Plateau phase.

**Legend**
- Forage yield (T/A)
Leaf, stem, and head proportion

- Tillering
- Early jointing
- Late jointing
- Boot
- Heading
- Kernel watery
- Soft dough
- Maturity

% of total

Feb | Mar | Apr | May | Jun

Leaf
Stem
Head
Triticale from early jointing to soft dough

• Yield increases linearly
• Quality decreases then levels off near heading
• After heading, no advantage to cut sooner than soft dough
  • Quality does not change much
  • Yield not maximized until soft dough