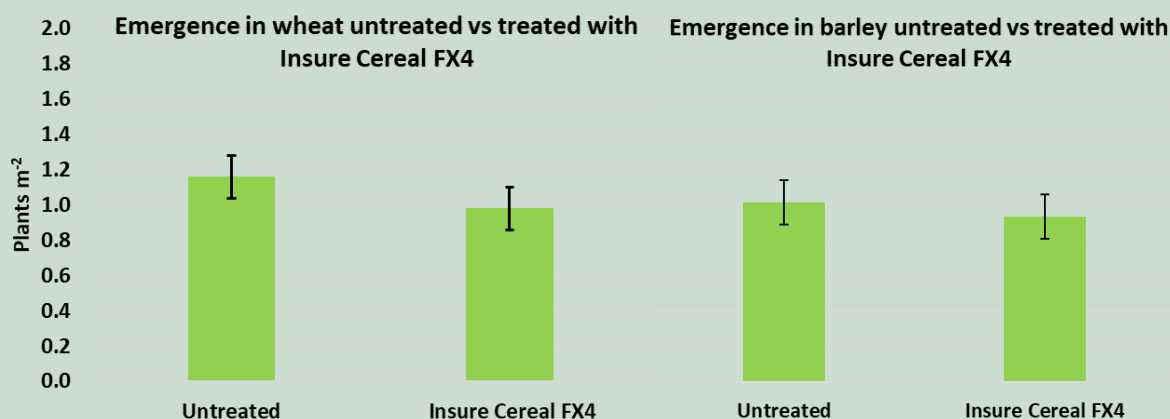


# DEMONSTRATION

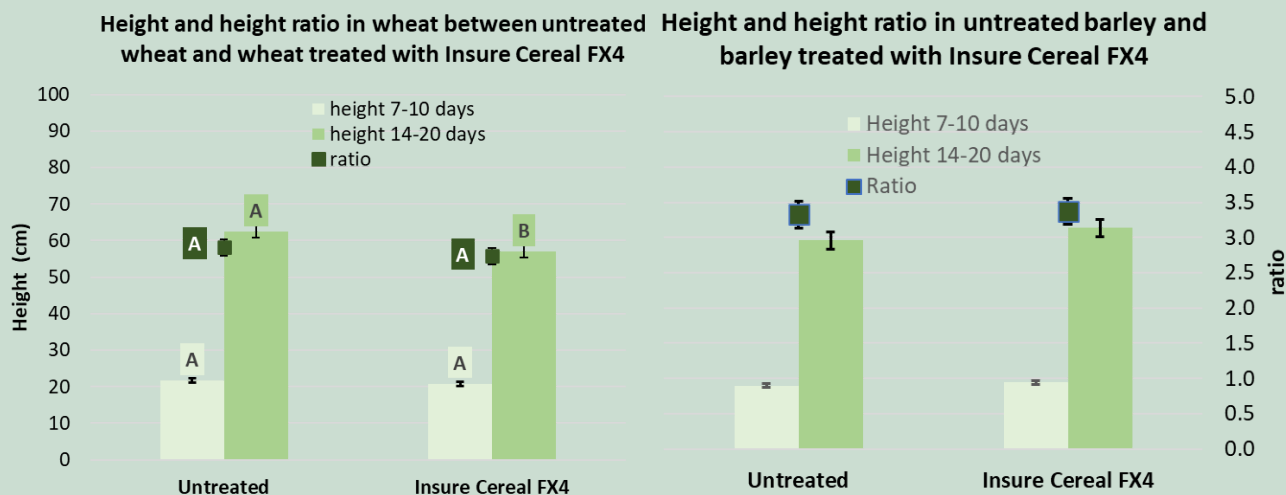
## BASF INSURE CEREAL FX4

Insure Cereal FX4 is a seed treatment sold by BASF that contains pyraclostrobin, which is a synthetic strobilurin that is used as a fungicide. Insure Cereal FX4 protects the seed against seed and soil-borne diseases. The application of this product allows unvarying emergence, more vigorous seedlings and promotes resilience against weather conditions. The objective of this demonstration was to compare the outcomes of wheat (*Triticum aestivum* L.) and barley (*Hordeum vulgare* L.) stands, whose seed was subjected to Insure Cereal FX4 application versus an untreated control.

A complete block design with two replicates and two treatments was used to test the product's effects on cereals. Treatments consisted of an untreated control and a sole application of Insure Cereal FX4. Both treatments were conducted on wheat and barley stands.



Emergence in wheat ( $P=0.3232$ ) and barley ( $P=0.4085$ ) were the same among treatments. Height in wheat was the same seven to ten days after planting ( $P=0.2394$ ), whereas at 14 to 20 days after planting untreated wheat stands were taller than its treated counterparts ( $P=0.0255$ ).

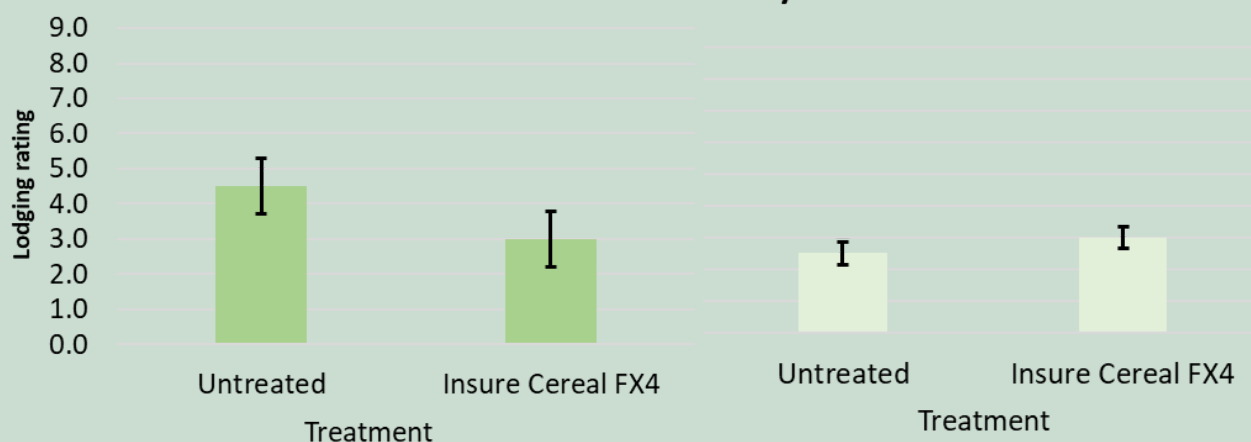


# DEMONSTRATION

## BASF INSURE CEREAL FX4

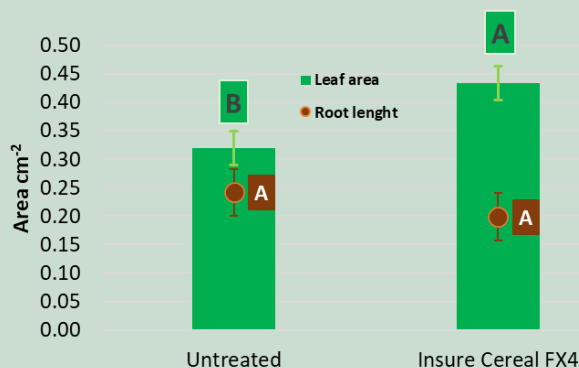
A ratio between heights was calculated and analysed. Height ratios indicated no difference among treatments ( $P=0.4479$ ). In barley, heights measured at seven to ten days after planting ( $P=0.2573$ ) and fourteen to twenty days after planting ( $P=0.2120$ ) as well as height ratio ( $P=0.7838$ ) were likewise among treatments. Lodging in wheat and barley was not influenced by Insure Cereal FX4 ( $P=0.4078$  and  $0.5000$  in wheat and barley respectively).

**Lodging rating in wheat untreated vs wheat treated with Insure Cereal FX4**      **Lodging rating in barley untreated vs barley treated with Insure Cereal FX4**

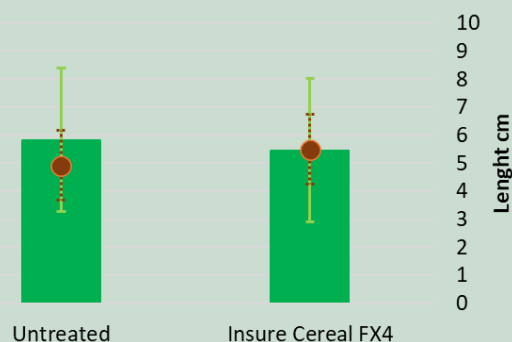


Wider leaves were found in wheat stands treated with Insure Cereal FX4 compared to untreated ( $P=0.0116$ ), but no differences were found in root length ( $P=0.4684$ ) among treatments. In barley leaf area and root length was not affected by Insure Cereal FX4 and leaves were as big, and roots were as long as those found in untreated barley stands ( $P=0.5714$  and  $0.2921$  for leaf area and root length respectively).

**Leaf area and root length in untreated wheat vs wheat treated with Insure Cereal FX4**



**Leaf area and root length in untreated barley vs barley treated with Insure Cereal FX4**

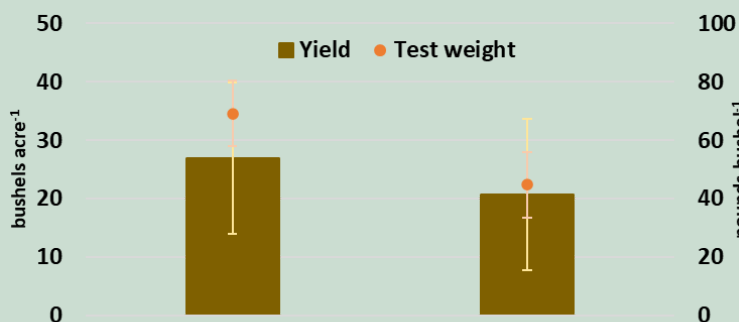


# DEMONSTRATION

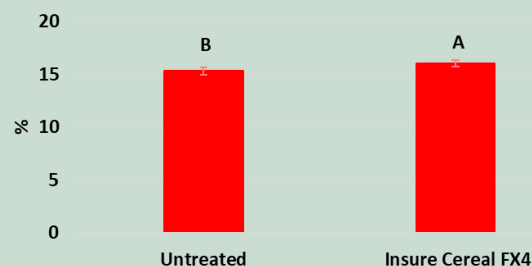
## BASF INSURE CEREAL FX4

Yield ( $P=0.7924$ ) and test weight ( $P=0.3634$ ) between Insure Cereal FX4 wheat treated plots and untreated plots were no different from each other. However, protein ( $P=0.0424$ ) was 5% greater in wheat stands treated with Insure Cereal FX4 compared to untreated wheat stands.

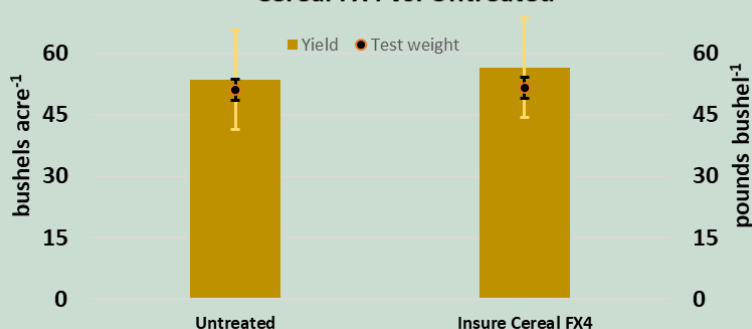
Yield and test weight in wheat treated with Insure Cereal FX4 vs Untreated



Protein content in wheat subjected to Insure Cereal BX4 vs. Untreated



Yield and test weight in barley subjected to Insure Cereal FX4 vs. Untreated



On a similar note, yield and test weight in barley were not influenced by Insure Cereal FX4 ( $P=0.8892$  and  $P=0.7284$  for yield and test weight respectively) and values were the same as those found in untreated barley plots.

### KEY POINTS:

- Insure Cereal FX4 made wheat stands shorter and with wider leaves and stands with greater protein content.
- Barley emergence, stand count, height, leaf area, yield and test weight was not affected by applications of Insure Cereal FX4