

6 steps to reduce the risk of lodging in cereals

Cereals

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Flat cereal crops can delay harvest, reduce grain quality and increase drying costs

Here's a step by step guide to keeping crops standing:

1. Remember how hard lodging hits

- Bad lodging can wipe an average of 2.5 t/ha off crop yield.
- Flat crops can delay harvest, reduce grain quality and increase drying costs.

2. Take account of agronomic risk factors

- Grow varieties with good root anchorage on light soils.
- Use seed rates appropriate to drilling dates to prevent overcrowding of roots and shoots.
- Delay nitrogen applications on thick crops until after start of stem extension to prevent weak 'leggy' plants.
- Assess ground cover at GS31 to gauge lodging risk (thicker cover increases the risk of lodging).

3. Take account of the reasons why crops lodge

- Wheat varieties can suffer root or stem lodging, or both.
- Barley tends to lodge in the stem.

4. Use a tailored approach to variety and agronomic factors

- Refer to the FAR Cultivar Evaluation booklet for straw strength and crop height for each variety.
- Contact the relevant seed company for agronomic advice on specific varieties.

5. Consider PGRs to overcome agronomic risks

- A well timed PGR such as Moddus® Evo can improve stem strength and root anchorage, and shorten crop height.
- Moddus Evo can give 20% increase in stem strength and 43% increase in root volume.

6. Don't be tempted to cut back on PGR

- High yielding crops are more at risk of lodging.
- The margin over chemical cost from lodging prevention can be over \$1,000/ha in a bad lodging year.

Factors influencing the risk of lodging

- Heavy rainfall or irrigation can weaken the top two inches of soil, increasing the risk of root lodging.
- Earlier sown crops can grow taller and produce more tillers with longer, thinner and weaker stems.
- High levels of soil nitrogen, or nitrogen applied before the start of stem extension produces longer internodes and weaker stems.
- Irrigated crops stay in the ground for longer, increasing the risk of wind damage prior to harvest.
- Lodging can reduce yields by up to 75% if crops lodge at ear emergence.
- Later lodging has less effect on yield, but can impact grain quality, harvest speeds, and drying costs.

[Click here to download](#) the Technote on how to reduce the risk of lodging in cereals.