



# ADESCO ADVANTAGE PROGRAMME: GRAIN QUALITY RESULTS 2011-2012



Report Date: April 2012



# REPORT SUMMARY

Adesco's Harvest Quality Report 2011 is based on comparative analysis of 144 samples of grain taken and analysed between two periods, harvest and early storage (August-September) and winter storage (October-March). As with previous reports the purpose of the research is to provide our customers with a national snapshot of grain quality at harvest and through winter storage.

## 2011 GRAIN QUALITY ANALYSIS

Overall grain quality for Harvest 2011 was excellent with Wheat at 78-82 kg/hl and Barley at 66-68 kg/hl harvested in many regions. There were some instances of poorer grain fill, resulting in lower hectolitre weights of 70-72 kg/hl and 61-63 kg/hl on some of the lighter soils which suffered soil moisture deficits. Average moisture was 18%.

Mould counts in green grain were 35,475 cfu/g (Figure 1) on average in 2011 which is similar to previous years. Adesco Assured Grain meets the highest grain quality standards with an average mould count of 573 cfu/g across 65 samples from August to September 2011 and 683 cfu/g across 49 samples from October to March 2012.

### 2011 GRAIN QUALITY ANALYSIS (CFU/G)

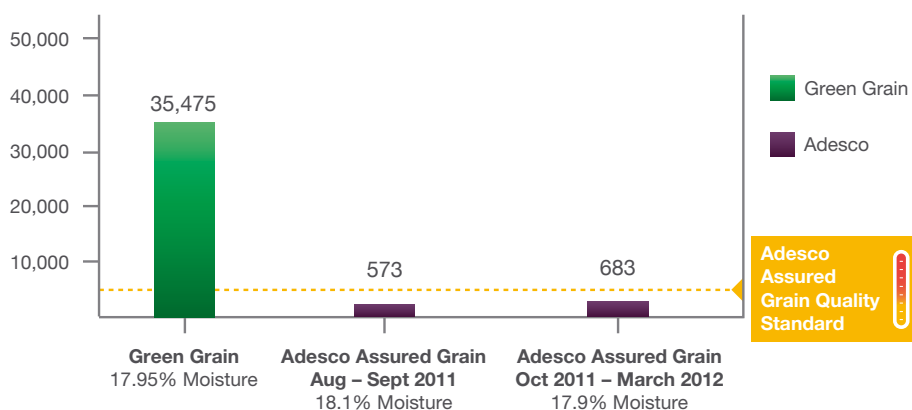
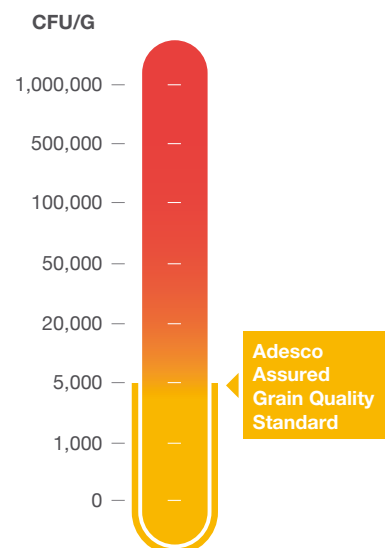


Figure 1: Total Mould Count (cfu/g)

## ADESCO ASSURED THE GRAIN QUALITY STANDARD

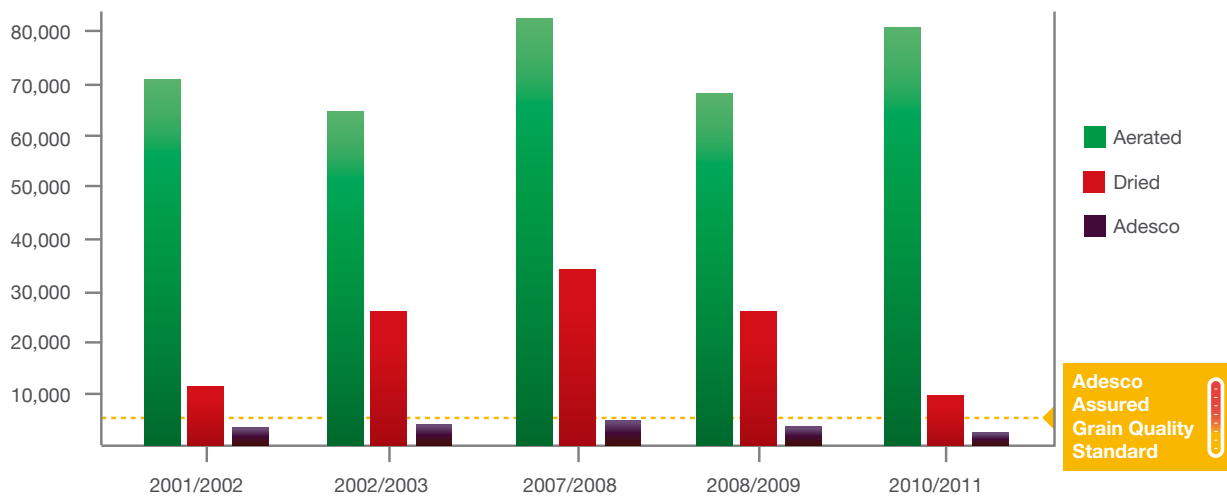


Adesco Assured is the gold standard for grain quality in Ireland. Only grain with a mould count (cfu/g) of less than 5,000 meets this standard. A low mould count means reduced risk of nutritional erosion through fungal growth and less chance of spoilage of grain when stored as a raw material or when milled.

# GRAIN QUALITY TRENDS 2001-2011

## QUALITY COMPARISON OF AERATED, DRYING AND ADESCO TREATED GRAIN

### 2001-2011 GRAIN QUALITY ANALYSIS (CFU/G)



As the graph shows, of the three alternatives tracked over time, aerated grain is the worst performer each year. Aeration consistently failed to arrest mould development during storage, irrespective of whether overall harvest conditions were wet (07/08) or relatively dry (10/11).

Dried grain recorded mould counts that were higher than acceptable. However, for every year surveyed the drying results are significantly lower than aerated grain, demonstrating a mould inhibition effect. When performance is compared year-on-year, there is a wide variance in the results, this suggests unpredictable effectiveness.

The fundamentals of the drying process, such as pre-drying storage, physical capacity pressures and high energy usage are probable causes of this inconsistency.

Each year Adesco treated grain consistently met the assured grain standard. Between 2001 and 2011 it achieved average counts of c. 1,500 cfu/g. Even during the wet year of 2007, a mould count result of 4,500 cfu/g is still comfortably within the Adesco Assured grain mark. High consistency and high effectiveness are characteristics of Adesco grain treatment.

## RISING OIL PRICES FUEL COST OF DRYING GRAIN

Oil prices look to be stabilising at levels similar to those experienced in the peak seen in 2008. The real concern is that this is not a peak followed by a sudden drop but is in fact a new higher base. Figure 2 charts the national average price of domestic heating oil since March 2010. It is clear that this cost is now relatively stable for the past year. Commercial energy sources tracks the trend of domestic sources as would be expected at a slightly lower level. **There are clear challenges of these higher oil costs for our industry in terms of primary cereal production costs, transport of cereals and finished feeds and cereal drying costs.**

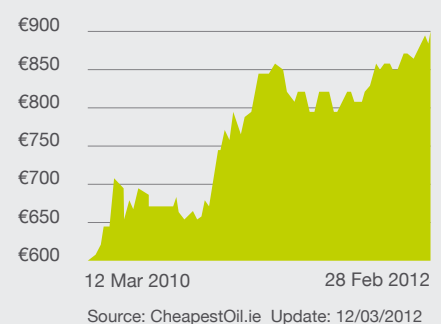


Figure 2: Heating Oil Price Trend March 2010-Feb 2012

NEW



## NEW ADESCO GRAIN MANAGEMENT CALCULATOR

To help you meet the challenge of rising costs Adesco has developed cost calculators to accurately determine the cost of drying grain and to identify potential savings which you can achieve through the Adesco Advantage Grain Management Programme.



NEW

# WIRELESS TEMPERATURE MONITORING

Robydome have been Adesco's technology partners since 2001, working together to provide a range of advanced temperature monitoring solutions. We are now delighted to announce the launch of Ireland's first wireless temperature monitoring system for grain management. Successfully piloted during Harvest 2011, this wireless system provides a highly flexible, accurate and low-maintenance means of tracking and controlling aeration in realtime.

Wireless probe



Wireless receiver



Handheld Monitor



## EASY INSTALLATION

The probes are securely placed in the grain pile at the required spacings.

## SECURE SIGNAL TRANSFER

A wireless signal sends the temperature readings to a receiver in the store (or a shared receiver for a number of stores).

## REALTIME MONITORING & ANALYSIS

Readings are then downloaded using the standard handheld monitor. The readings can be downloaded to a spreadsheet on your PC for record and control purposes.

**Contact us for further information,  
call +353 (0)59 97 22995 or email [info@adesco.ie](mailto:info@adesco.ie).**

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## ABOUT ADESCO

Adesco is committed to helping grain processors to quickly and significantly improve competitiveness by reducing the cost of high quality grain production.

Adesco's innovative science-led solutions work with nature to reduce the cost of consistently producing higher quality grain with improved nutritional yield that is cleaner and more environmentally sound. Adesco offers a range of advanced products, measurement and application systems and ongoing grain performance programmes.

**For more information on the Adesco Advantage Grain Management programme, email [info@adesco.ie](mailto:info@adesco.ie)**

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