

# Tillage

## A Teagasc Advisory Newsletter

January 2012

### Change of venue for National Tillage Conference

*The National Tillage Conference will take place in the Lyrath Hotel, Kilkenny on Wednesday January 25.*

#### **Topics on the day include:**

- Feeding the world's population - Ian Crute, HGCA, U.K.
- Septoria sensitivity and disease control - Steven Kildea, Teagasc;
- High cereal yields explained - John Spink, Teagasc;
- Barley nutrition – Richie Hackett, Teagasc;
- Share-Farming – Michael Hennessy

### Health and safety Message

January is a good month for maintaining machinery in advance of the spring season. Here are some tips for securing your health and safety when doing this work:

- Ensure that all lifting equipment is fit for purpose and if necessary checked by a competent person such as an insurance company inspector. Never exceed the safe working load. Never depend on hydraulics, always provide support, for example, by axle stands before the work is undertaken.
- Many substances used in workshops such as petrol, diesel, oils and greases, solvents/thinner exhaust fumes and dust have the potential to cause permanent ill health. These include irritant and allergic dermatitis, sensitization of the lungs, neural effects and cancer (notably by burnt oil exhaust from engines). An irritant reaction occurs at the point of contact with the substance while an allergy or sensitization affects the whole organ (e.g. skin or lungs) and the reaction is subsequently triggered by a low level exposure. The key preventative approach is to avoid contact with potentially harmful substances. Wear oil resistant neoprene or nitrile gloves, face shield and overalls and ventilate to minimise airborne hazards and wear a suitable face mask (EN 149, P2/P3) to prevent inhalation of dusts and spores.

Consult the Teagasc booklet Safety in the Farm Workshop – Guidelines and Checklist for further information at <http://www.teagasc.ie/publications/2003/989/safetyinthefarmworkshop.pdf>



## Plough Pressing – Why? (Ciaran Hickey & Dermot Forristal, Oak Park)

When you plough, the soil is loosened and mixed. This lets air and warmth into the soil but also causes it to absorb more moisture. This loose wet soil can dry very slowly and can delay subsequent cultivation to produce a seedbed. The short time between ploughing and sowing nowadays means there is very little time for a complete settling down of the soil. The press speeds up the process of the soil settling back down after ploughing.



When soils dry in the spring, we want to avoid unbroken clods in the top layers drying out too much and forming lumps that are very hard to break down into a fine firm seedbed. Also we want to avoid the top layer drying out too much prior to drilling.

With this in mind furrow presses do very good work directly behind the plough. The big benefit is that it is at the right time, that is when soil moisture content is at an optimum level and lumps are easy to break down. The downsides are extra power demand and the inconvenience of some furrow press systems.

### **In Summary - why should you look at plough presses?**

1. Soil is pressed down to seeding depth; rough clods are reduced in size.
2. Drying-out is prevented; thus avoiding the formation of hard lumps.
3. Capillary action/ drainage is quickly restored and pressed land can be faster to dry out than ploughed land.
4. The pressing reduces the workload on the next implements giving them a better chance of breaking down cloddy soil and a good levelling action.
5. Working passes are reduced thus reducing overall compaction
6. There is a reduced need for further consolidation during subsequent seedbed preparation.
7. This results in ready to sow fields where two jobs have been carried out at once, ploughing and initial preparation of the seedbed.

## **Estimated Cereal Production 2011**

The total cereal production is estimated to be almost **2.5 million tonnes**, 22 % above the 2010 production and well above the long term average (2 million tonnes). The high production is due to a combination of an increased winter cereals area (higher yield potential), very favourable growing conditions (particularly during the grain fill period) and good harvest conditions. Compared to Central Statistic Office records (since 1985) – winter & spring barley and spring oats recorded their highest yields in 2011. Winter and spring wheat recorded their 2<sup>nd</sup> highest yields since 1985 (2004 being the highest). Low temperatures (causing winter-kill) was probably the main reason why winter oat crops under-performed relative to the other cereals. Grain prices remained high until harvest time as the spring drought in Northern Europe did not reduce grain yields as predicted. Grain maize yields were very high also reducing cereal prices.

**Table 1 Cereals: Area, Yield & Production for 2011 and 2010**

	Cereal Area ('000 ha)				Yield (t/ha)		Cereal Production ('000 tonnes)			
	2011*	2010*	Diff ('000 ha)	%	2011	2010*	2011	2010*	Diff ('000 tonnes)	%
W. Wheat	77.3	59.8	17.5	29.3	10.2	8.9	788.5	532.2	256.2	48.1
S. Wheat	16.4	18.0	-1.6	-8.9	8.3	7.6	136.1	136.8	-0.7	-0.5
W. Barley	35.9	28.8	7.1	24.7	9.0	8.5	323.1	244.8	78.3	32.0
S. Barley	144.6	146.0	-1.4	-1.0	7.5	6.7	1084.5	978.2	106.3	10.9
W. Oats	9.0	10.3	-1.3	-12.6	7.7	7.8	69.3	80.3	-11.0	-13.7
S. Oats	12.2	9.4	2.8	29.8	7.9	7.2	96.4	67.7	28.7	42.4
<b>Total Cereals</b>	<b>295.4</b>	<b>272.3</b>	<b>23.1</b>	<b>8.5</b>	-	-	<b>2497.9</b>	<b>2040.0</b>	<b>457.8</b>	<b>22.4</b>

Totals may not agree due to rounding-off

\*Data taken from [www.cso.ie](http://www.cso.ie)

## Teagasc Estimated Winter Crop Areas 2012

**Estimated Winter Cereal Areas for 2012 & Relevant Comparisons ('000 ha)**

	<b>2012</b>	<b>2011*</b>	<b>Diff (ha)</b>	<b>% Diff</b>
W. Wheat	85,000	77,000	8,000	<b>10</b>
W. barley	45,000	36,000	9,000	<b>25</b>
W. Oats	8,000	9,000	-1,000	<b>-11</b>
<b>Total Winter Cereals</b>	<b>138,000</b>	<b>122,000</b>	<b>16,000</b>	<b>13</b>
Winter Oilseed Rape	15,000	8,000	7,000	<b>87</b>
Winter Beans	400	-	-	-

\*CSO Data

The assistance of the CSO & DAFM with the statistics is gratefully acknowledged.

This autumn, crops have established well and given the mild November, crops are not especially advanced. Weed and aphid sprays are estimated to be 75 % complete, especially in southern counties.

For further information on any issues raised in this newsletter, or to access other enterprise newsletters, please contact your local Teagasc Advisor or see [www.teagasc.ie](http://www.teagasc.ie).