

# TILLAGE

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## Autumn planting

Edited by

**Shay Phelan,**

**Crops and Potato Specialist**

With the 2023 harvest now confined to memory except for a few late crops, attention has turned to planting winter crops. September weather has delayed the progress of many of the early drillers so some of the larger growers or those using reduced cultivation systems are already playing catch-up.

The wet harvest has also thrown up problems for growers in terms of baling straw, sowing catch crops and completing stubble cultivations. However, there is another hidden problem that has emerged for fields intended for winter crops, and that is compaction. Many fields have areas that were compacted by trailers and/or combines during the harvest and will perform poorly unless action is taken. For some, this may mean an extra pass of a cultivator to lift the ground. However, this can only be done if the soils are dry; otherwise, you may only make the problem worse by creating a compaction layer further down in the soil profile. Those who use plough-based systems may think that the plough will sort out the problem, but that



*Farmers should dig a soil pit to check for compaction.*

may not be the case. In many situations we have seen compaction at the plough depth, which can also be difficult to remove. All farmers should dig a soil pit this year in areas where they think there may be some issues and see what level of damage is underneath the soil surface.

### Variety choice

Looking at the recently published recommended lists, there are a few points to note. In winter barley, there is plenty of choice between two-row, six-row and six-row hybrids, all with their own advantages and disadvantages. When deciding on

a variety, yield is often the deciding factor, but straw strength and the disease resistance profile can often add hidden costs that can be more important than the yield rating. KWS Tardis will again be the most popular variety this year as it has a good overall package. The performance of Casting, Cassia and Infinity were mixed this year so some growers will look to the new two-row Bordeaux, which has been provisionally recommended this year. In terms of six-row hybrids, Belfry and SY Armadillo are both available, while KWS Joyau (six-row) and Molly (two-row) have barley yellow dwarf virus (BYDV) tolerance/resistance for those who are worried about aphid damage.

This year the choice of good wheat varieties is very limited. Costello is no longer recommended and there are no new varieties being provisionally recommended, which means that variety choice is limited to Graham, JB Diego, Dawsum, Spearhead and Torp. Graham, JB Diego and Torp are

susceptible to yellow rust, so bear in mind that you may have to use an early T0 to control this next spring if you decide to drill them, and the choice of fungicides to control it is limited. Spearhead is susceptible to sprouting, while Torp is susceptible to fusarium.

In oats, the story is the same as last year, with Isabel and Husky being the only two varieties available. Husky is slightly better yielding but Isabel has better grain quality characteristics, although both are susceptible to mildew and crown rust.

### Seed rates

**Table 1** shows the seed rate at different thousand grain weights (TGWs) for both wheat and barley. Grain quality was a significant problem in many crops harvested in 2023, so expect the TGW to be different to last year. Be aware that there will be variations between different batches, so adjust seed rates accordingly. Given the recent wet weather in September, many soils have no soil

**Table 1: Seed rates at different thousand grain weights for wheat and barley.**

Planting date	October week 1		October week 2		October week 3		October week 4	
	Barley	Wheat	Barley	Wheat	Barley	Wheat	Barley	Wheat
Target plants m <sup>2</sup>	280	250	290	260	300	270	310	280
Sowing seeds m <sup>2</sup>	350	313	387	347	400	360	443	400
% establishment	80%		75%		75%		70%	
TGW	Seed rate kg/ha*							
45	158	141	174	156	180	163	199	181
46	161	144	178	159	184	166	204	184
47	165	147	182	163	188	169	208	188
48	168	150	186	166	192	173	213	192
49	172	153	189	170	196	176	217	196
50	175	156	193	173	200	180	221	200
51	179	159	197	177	204	184	226	204
52	182	163	201	180	208	187	230	208
53	186	166	205	184	212	191	235	212
54	189	169	209	187	216	194	239	216
55	193	172	213	191	220	198	244	220

To convert kg/ha to stones/ac, multiply kg/ha by 0.064.

moisture deficit, so soil conditions may be less than ideal at sowing. This will reduce percentage establishment and should also be taken into

account. Be aware that six-row hybrid barleys are sown at lower rates (200-240 seeds/m<sup>2</sup>) compared to other barley varieties.

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## Autumn weed control

Pre-emergence herbicides have been shown to be more effective in controlling many problem grass weeds such as bromes, blackgrass and annual meadow grass. Fortunately, there are plenty of options, so pick a mix that will control the main weeds in each field. Remember, it is unlikely that the same mix will cover all the weeds in fields, so specific knowledge of the predominant weeds is vital for pre-emergence herbicides to work efficiently. If in doubt, ask your local Teagasc advisor for details of what herbicides are best suited to the weeds you need to control and use this as the base of your programme. Products such as pendimethalin (various), prosulfocarb (Defy/Roxy), flufenacet (Firebird/Navigate, etc.) give best results when applied early, especially where annual meadow grass is a problem, while chlorotoluron (Tower) can be used at early post emergence. Add in diflufenican (Stride/Diflanil, etc.) to improve the control of charlock, chickweed and speedwells. Firebird Met will help to control groundsel as well as many other broadleaf and grass weeds.

There have been a number of new reports of blackgrass appearing on different farms this year, and while many of these fields will be sown in break crops as part of an integrated pest management (IPM) approach, some will probably be drilled with wheat or barley, even though this is not recommended. Avadex Factor (tri-allylate) will improve the control of blackgrass and Italian ryegrass as part of a strategy with flufenacet. It is not recommended in these situations to use it alone and it will possibly require a follow-up treatment of flufenacet or, in wheat, Pacific Plus or Monolit (provided that it is not resistant). However, be aware that the cost of controlling blackgrass in wheat or barley with all of these herbicides will be extremely expensive. Zypar will improve the control of fumitory, poppy and volunteer beans. Many of the active ingredients will appear in mixes, so choose products that will control as many of your weeds as possible. Target the most problematic weeds first and the less important ones can be tidied up later.

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## Winter oilseed rape

Given the delay at harvest, chances to drill oilseed rape were more limited this year, so we expect the overall area to decline somewhat from last year. Reports of slug damage are more frequent this year so be alert. If there is any sign of grazing apply slug pellets, especially to late-sown crops, which will be at more risk. August-

sown crops should be at a lower risk now, but check for grazing in fields with a history of slug damage.

Volunteer cereals and some grass weeds seem to be growing well at the moment and are competing with some crops. If they haven't already been treated, any of the approved

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graminicides (Falcon, Fusilade Max, etc.) can be applied now at three-quarters to full rate depending on the weed issue.

Phoma will be the main target of autumn fungicide applications; however, varieties differ in their susceptibility so follow the threshold guidelines for the control of phoma (10% of plants affected). Don't forget that this fungicide timing needs to be effective against both phoma and light leaf spot (LLS).

The choice of fungicide will often come down

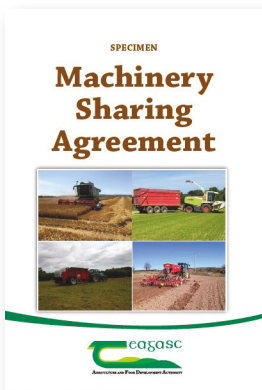
to whether or not the crop needs a growth regulator effect or not. Backward or thin crops will not need a growth regulator, so an application of a half-rate prothioconazole (Proline) should be adequate. For early-sown crops where a regulator is probably needed include metconazole-based products (Sirena, Plexeo) or tebuconazole-based products (Prosaro, Jade, Pontoon, Protendo), again at half the recommended rates.

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## Machinery sharing template

Many tillage farmers will often attend machinery demos or the National Ploughing Championships to look at new machinery before they decide to invest. This year, with poor returns from the harvest, many will not be able to afford to purchase new/second-hand machinery. The cost of machinery has inflated significantly over the last few years, which makes the affordability more challenging, even in good times. While Targeted Agriculture Modernisation Schemes (TAMS) help in this regard, they only apply to new machinery and not all equipment is covered.

Last year, Teagasc launched a potential solution to the machinery cost challenge when it published a new 'Machinery Sharing Template' for farmers and farm contractors. This is not a new idea, as there are numerous informal sharing arrangements in operation in the country at present. The template is a comprehensive guide to setting up a sharing arrangement for new or existing partnerships, and covers issues such as ownership ratio, insurance, maintenance, replacement strategy and usage, while also



*Teagasc's Machinery Sharing Template will help farmers contemplating such an arrangement.*

helping farmers when it comes to the end of the arrangement.

Where these arrangements are in place, they are a very effective way of reducing machinery costs as well as gaining access to labour. For details of the Teagasc Machinery Sharing Template, contact any Teagasc office or go to: <https://www.teagasc.ie/rural-economy/farm-management/collaborative-farming/machinery-sharing-template/>.