Spring Crop Walks 2015 (April 20th - 30th)

Time final winter barley fungicide at awns/head emerging. If you delay until the head is fully emerged (picture) you will lose 0.5 t/ha.

Assess leaf emergence to target the T1 fungicide onto the 3rd last leaf (25th - 30th April)

Target sclerotinia sprays at early petal fall in Oilseed rape.
Later infections are not as damaging as they affect lesser yielding side-branches.

Register for SUD on DAFM website before 26th November 2015.

Teagasc trials have shown 1.0 t/ha loss where herbicides were delayed to gs 30/31 and where weed pressure is high

Early season disease can rob tillers and grain sites in spring barley. Apply T1 at stem extension (gs 30) or earlier if disease is present.

Watch out for Bean Weevil (notching at leaf edge) over next few weeks.
Apply aphicide at full 'bean rate'. If notching continues (especially on young, unfurling leaves), consider a 2nd application.

Chocolate Spot is the greatest bean disease threat.
Apply fungicides at start of flowering (earlier along coast) and 2-3 weeks after.

Winter Crop Management

Winter Wheat

Crops At GS 30-32

- Complete main split nitrogen before gs 32 (approx. 50% of total N)
- Complete final nitrogen split before gs 39 (approx. 25% of total N)
- Apply T1 onto 3rd last leaf

Table 1 Ag-chem options late April-May

Date	**Disease pressure is low so far** **Apply T1 fungicide when third last leaf fully expanded**
	Need to split plants or get someone to do it for you to find 3rd last leaf
20th to 30th April	+ Bravo + Triazole +SDHI @ 80-100% (Adexar/Aviator/ Librax/(Imtrex + triazole)/Seguris/Cauldron/Venture+Gleam/Gleam) +/- trace elements +/- Wild Oat Control (Cheetah Extra options (new rate 0.60-0.80L/Ha), or Axial @ 0.20L/ha + Agidor @ 1.0L/Ha or Croplink Avena or Farmco Axis

***Note**

- Watch Leeds, Avatar and Einstein for Mildew

Winter Barley

Crops at GS 32/33 to flag leaf peeping

- All nitrogen should be applied by now
- Target PGR at flag leaf peeping to flag leaf fully out
- Apply final fungicide before you see bottom grains of head

Date	
T2+PGR between gs 32 – 37 Timing governed by PGR Before awns visible	PGR options: Cerone (0.75 - 1.0 l/ha) or Terpal (1.5 – 2.0 l/ha) or Moddus (0.4-0.6 l/ha) need higher rates on 6-rows, lower rates on 2-rows Fungicide rates governed by overall strategy and intervals 2/3 rate Triazole + SDHI (Adexar, Bontima, Ceriax, Siltra, [Imtrex/Zulu/Vertisan+triazole], Deuce+Diamant etc.) **Or** 2/3 rate Triazole + strob (Fandango, Lumen, Zephyr, etc.)
T3 GS 39-45 Before you see the bottom grains of the head or you lose yield	**Chlorothalonil 1.0 L** (For Ramularia) + 2/3 rate Triazole + SDHI (Adexar, Bontima, Ceriax, Siltra, [Imtrex/Zulu/Vertisan+triazole], Deuce+Diamant etc.) **Or** 2/3 rate Triazole + strob (Fandango, Lumen, Zephyr, etc.)

- Note: if wild oat herbicide needed latest timing GS37. Must use full rate of herbicide for good control

Winter Oats

Crops at GS 31-33

- All N should be applied by now
- Only target yield robbing weeds if present – watch timings on oats with herbicides
- Main split of Growth Regulator at GS 32-33; better effect on warmer days

Date	T2 Fungicide and main split of Growth Regulator
T2 + Main PGR Late April GS 32-33	Strong fungicide to target mildew and Crown Rust plus PGR at gs 32-33. Options: • Furlong 0.5-0.8L/ha + Talius 0.2L/ha • Tocata 1.0-1.5L/ha • Jenton 1.0L/ha + Talius 0.2L/ha • Frelizon 1.0L/ha + Talius 0.15L/ha • Vareon 0.8-1.0 l/ha + 50% strob • Tebuconazole + Amistar/Galileo/Modem Include Corbel/Tern/Winger if knockdown on mildew is required
T3 Early/Mid May At flag leaf emerged to heading	Suitable product mixes are similar to those at T2 but rates can be tailored to the disease challenge. • Furlong 0.5-0.8L/ha + Talius 0.2L/ha • Tocata 1.0-1.5L/ha • Jenton 1.0L/ha + Talius 0.2L/ha • Frelizon 1.0L/ha + Talius 0.15L/ha • Vareon 0.8-1.0 l/ha + 50% strob • Tebuconazole + Amistar/Galileo/Modem Include Corbel/Tern/Winger if knockdown on mildew is required

Note: Treoris/Vertisan/Intellis are not cleared for oats

Watch CCC label restrictions on Oats as residues may be an issue

Winter Oil Seed Rape

Late Crops

-Once flowering is started – very hard to justify Pollen Beetle spray

All Crops

Apply last N 40-70 kg/ha for grain fill at early to mid- flowering as late as you can practically spread

Put on a fungicide for Sclerotinia at start of petal fall (Filan 0.5 kg or Amistar 1.0 l/ha or Proline 0.5 l/ha)

Teagasc Oak Park Crops and Spraying 2015 24th June 2015

- Latest technical innovations including; winter and spring barley, winter wheat, oats, oilseed rape and beans.
- potato breeding programme will be on display as will
- Variety plots from the DAFM and new sugar beet varieties.
- Break crops

The day also incorporates a spraying event with live demonstrations organised in conjunction with the Irish Farmers Journal.

The main combine manufacturers will also be on hand to demonstrate how to optimise settings to ensure the crop is fully threshed whilst minimising losses and damage to grain.

Spring Cereals Weed, aphid and disease control recommendations 2015

- The key to successful weed control is to control weeds early i.e. 4 leaf stage to early tillering of the barley
- Know your weeds and select the most appropriate herbicides from the suggested list below
- Good growing conditions will heavily influence control. Ideally apply a herbicide after 2- 3 growthy days with 2-3 growthy days after application

Herbicide (Apply at GS 14-21 four leaf stage to early tillering)			
Clean Field	**Resistant weeds**	**Dirty field/late application**	**Notes**
Ally Max SX 25 - 30 g/ha **Or** Empire Supreme SX 75-90 g/ha **+** CMPP 1.25 l/ha **Or** Starane 0.75 l/ha **Or** Hi Load Mircam 0.75/ha			• Will work well in most situations • Key weeds- Charlock, Chickweed, fat hen, deadnettle, redshank, • Use Starane if chickweed hard to control in the past
	Ally Max 25-30 g/ha **Or** Empire Supreme SX 75-90 g/ha **+** Galaxy 1.25 l/ha or MCPA 50% 2.0 l/ha*		• Use where resistant weeds are a problem • Marigold – use high rate of Galaxy • Chickweed - use CMPP or Starane • *Poppy only – use MCPA 2.0L/ha
		Harmony Max SX 90 g/ha **+** Galaxy 1.0 l/ha	• Use where o field weeds unknown **or** o where the previous control was not good **or** o weeds are strong o don't apply after crop gs32
Aphicide • **March sown crops** **Aphid risk is low -- NO APHICIDE REQUIRED –** • **April sown crops**[1] **Aphid risk medium to high** (Add to the herbicide choice above) Sumi Alpha 0.165 l/ha or Cypersect/Ambush/Sitrine 0.25 l/ha or similar [1] Check Teagasc Newsletter and www.teagasc.ie, See additional note below			• Aphid numbers are low in Oak Park (early April) • April crops will benefit from an aphicide • There is low levels of pyrethroid resistance • Watch chemical records as insecticides are at full rates o If normal aphicides do not work then consider use chlorpyriphos or pirimicarb
Adding more chemicals to the tank • If disease is visible at the weed timing then add a fungicide • Where trace elements are needed (check oil results) add to the tank • Carefully consider where wild oat control should be applied to the crop. Consult your agronomist.			• **Wild Oats** 0.2 L/ha Axial + 1.0 L/ha Adigor • **Canary Grass** 0.4 L/ha Axial + 1.0 L/ha Adigor • **Can add to the disease control at GS30**

Note: Generic replacements are available for almost all ag-chems mentioned and can represent savings

Spring Barley Disease Control

- Trials have consistently shown applying disease control early is the most profitable strategy
- Key timings are: Fungicide 1: At growth stage 30 (before stem extension); Fungicide 2 GS 39-45 (as the majority of awns are emerging)
    - Oak Park trials have shown applying fungicides at the correct timing increased yields by 0.5t/ha (0.2t/ac) for the same fungicide spend

Timings and Products	Notes
T1 Timing GS 30 Triazole (Proline, Rubric, etc) @ ½ rate + SDHI or Strob +/- Corbel/Tern @ ½ rate (if mildew present)	• Early disease control (early tillering) is important to maintain tillers. • Always control disease if present early • **Use higher rates if disease pressure is high** • Cleaner varieties: Taberna, Irina, Quench. • Moderately clean varieties; Propino, Overture
T2 Timing: Flag Leaf to awns visible (gs 37-49) **Chlorothalonil 1.0 L** **+** ½ - ¾ rate **SDHI/triazole mix** (Adexar, Bontima, Ceriax, Vertisan +triazole, Siltra, etc) **or** **Chlorothalonil 1.0 L** **+** ½ - ¾ rate Triazole (Proline, Strand etc.) **+** ½ rate SDHI (Imtrex/Vertisan/Zulu) or Strobilurin (Amistar, Galileo, Modem)	• Target the final fungicide before the head is emerged. Trials have shown this earlier timing can increase yields by 0.5t/ha compared to applying a fungicide at flowering • Pre-formulated mixtures of the products mentioned and other actives are widely available e.g. Amistar Opti, Credo, Deuce/Diamant, Fandango, Jenton, Lumen , Treoris etc.) • ***Note****:Flusilazole products e.g. Punch/Lyric/Sanction were de-registered in 2014 and cannot be sprayed in 2015.*

BYDV in Spring Cereals

Aphid flight is unlikely (to date) due to below optimum (<15^{0}C) conditions for winged aphid development.
Aphid numbers have been low over winter and so far this spring in Oak Park.

March drilled cereals:

Teagasc experiments (n=8) have shown that BYDV rarely affects March drilled barley.
Continue to monitor crops for aphid presence and apply a full cereal rate pyrethroid at 3-5 leaf stage if aphids are present.

April drilled cereals:

Apply a full cereal rate pyrethroid at 3-5 leaf stage.

Pyrethroid resistance

Monitor pyrethroid efficacy for a week after application (presence of dead aphids).
Pyrethroid insecticides include: Cypersect, Sitrine, Ambush, Methrin, Decis, Sumi alpha, Karate, Karis 10, Lamba, Farmco Aphicid Super
If further control is needed, apply Aphox/Dursban, if following pyrethroid – more info in Teagasc Crop Reports

Spring Barley Nitrogen

Nitrogen	Seedbed/Emerging	Early tillering	Gs 30-31	Notes
Malting brewing barley (155 kg/ha N) N Index 1	25-30% of total (36 units/ac N)	45-55% of total (60 units/ac)	20-25% of total 27 units/ac[1]	[1]Extra N allowed + 20 kg N/ha per ton of grain, if historic yields above 6.5 t/ha **If using extra nitrogen apply before GS31**
Feed Barley (135 kg/ha N) N Index 1	30-40% of total (32-43 units/ac N)	60-70% of total (76-65 units/ac)		
Tiller management	Correct all deficiencies. Apply all nitrogen early. Use Ceraide or K2 1.0 L/ha at early tillering stage			

Spring Wheat (or winter wheat varieties sown in the spring)

Crops early tillering

- 1st N – Up to 25-35% of total should be applied by early tillering
    - 45 – 50 units N /acre (Normally a Compound + S) already applied
    - The main split of N 70 units/ac is due before gs31 so this should be applied in the next week to 10 days depending on Growth.
    - Treat winter varieties similarly to spring varieties
    - All crops behind normal

P & K	Follow soil samples and apply with or before first nitrogen			
Trace elements	Apply trace elements based on soil test results Apply ½ rate 4 leaf to early tillering then balance in 10 -14 days later			
Weed Control	**Product choice**			**Notes**
See S Barley	Add IPU up to 2.0L/ha for AMG control to SU + hormone			
Nitrogen timing	**Seedbed/Emerging**	**Gs 30-31**	**Flag leaf (or liquid at milky ripe grain)**	**Notes**
Milling Wheat (170 kg/ha N)[1] N Index 1	25-35% of total (40 units/ac N)	45-55% of total (70 units/ac)	15-20% of total 26 units/ac[1]	[1]Extra N allowed + 20 kg/ha N allowed where proof of yields above 7.5t/ha + 30 kg N/ha where proof of milling contract
Tiller management and shortening	Use 1.0 – 1.5 L/ha of CCC at gs 30-31. Can follow with Cerone 0.5-0.6 from gs 32-39			

Fungicides				**Notes**
Variety interaction	**Winter varieties** (Cordial, Einstein, JB Diego) –Watch for Septoria and Mildew **Spring Varieties (**Granary, Sparrow, Trappe) - Watch for **Mildew** in all varieties and septoria			Late emergence will put all varieties at high risk from mildew in early growth. Spring crops will run through growth stages quickly. Winter varieties sown varieties will be slower to go through growth stages initially Target total spend €45-55/ac (depending on disease pressure)
	T1	**T2**	**T3**	
	Chlorothalonil 1.0 L **+** **Triazole (50-75% rate) + Morpholine** Gleam/OpusTeam/Proline/Tocato etc **or** Triazole + SDHI (50-70% rate) Adexar, Aviator, Cauldron, Seguris, etc **or** Chlorothalonil + Tocata	**Chlorothalonil 1.0L** + 75-100% Triazole + SDHI e.g. Adexar, Aviator, Cauldron, Seguris, Treoris, Gleam, Prosaro Plus Morpholine if necessary	**Triazole** e.g. Caramba, Folicur, Gleam, Prosaro Plus Morpholine if necessary	

Spring Oats

- Control mildew early in spring oats to avoid persistent fire fighting through the season

P & K	Follow soil samples and apply with or before first nitrogen		
Weed Control	**Spring Oats**	**Notes**	
	See spring barley notes	Watch for incompatible products with oats (e.g. Harmony,etc.)	
PGR	Apply 1.4 L/ha Ceraide etc. at gs 30-31 for spring oats with high lodging risk Apply 2.0 L/ha 750 CCC to all crops gs 32-33 for maximum shortening effect.		
Nitrogen (8t/ha)	**First application**	**Main split (GS30-31)**	**Note**
Spring Oat Normal Crop 110 kg/ha (88 units)	Seedbed or emerged crop 55 kg /ha/N (44 units/ac)	55 kg /ha/N (44 units/ac)	Additional N available + 20 kg N/ha per ton of grain, if historic yields above 6.5 t/ha
Fungicides	**T1**	**T2**	**T3**
Fungicide timing	End of tillering to GS 30	GS 32-33 (with PGR)	Ear Emergence
Product Choice	**Broad Spectrum (incl. mildew**) Tocata 1.0 L/ha, +Talius 0.15 L/ha, Etc.	**Broad Spectrum + Strob.** -Furlong 0.5-0.8 L/ha + Talius 0.2 L/ha (+ Corbel 0.25 L/ha where mildew >5%) -Tocata 1.0-1.5 L/ha -Frelizon 1.0L + Corbel	**Broad Spectrum + Strob.** - Furlong 0.7-0.8 L/ha - Jenton 1.0L -Folicur 0.6L + Amistar 0.5L -Frelizon 1.0L + Corbel etc.

Spring beans

P & K	Follow soil samples and apply with or before first nitrogen	
Weed Control	**Product**	**Notes**
Broad leaved weeds	Basagran 0.5-1.0L/ha + rape oil 1.0L/ha	This is a very hot mixture and SCORCH will occur. Useful where large populations of rape/prasach present. Use with caution
Wild oat control	• Aramo 1.0 - 1.5 l/ha • Falcon 0.7 – 1.5 l/ha • Fusilade Max @ 1 - • Stratos Ultra 1.5 - 4	Watch labels as most products can only be used up to the flower bud stage
Pest control	**First application**	
Bean Weevil **Aphids**	Apply Pyrethroid insecticides at full rates Generally not a problem	Once notching is noticed apply an aphicide Aphids can be seen in late season but generally not a major problem
Fungicides	**T1**	**T2**
Fungicide timing	Start of Flowering	2-3 weeks later
Product Choice	- Signum 0.5-0.75 kg/ha or - Amistar 0.5 l/ha + Folicur/Fezan 0.75 l/ha	- Signum 0.5-0.75 kg/ha or - Amistar 0.5 l/ha + Folicur/Fezan 0.75 l/ha