

Enable Conservation Tillage

Scorecard

Wild Oats

Enable Conservation Tillage is a European Innovation Partnership project being administered by DAFM. The project is funded by the EU Recovery Instrument Funding under the Rural Development Programme 2014-2022.



An Roinn Talmhaíochta,
Bia agus Mara
Department of Agriculture,
Food and the Marine



The European Agricultural Fund
for Rural Development: Europe
investing in rural areas



How to Use this Guide

1

This scorecard is designed to assist you to identify accurately the problem weed(s) and to assist you in assessing the scale/severity of the problem on your farm.

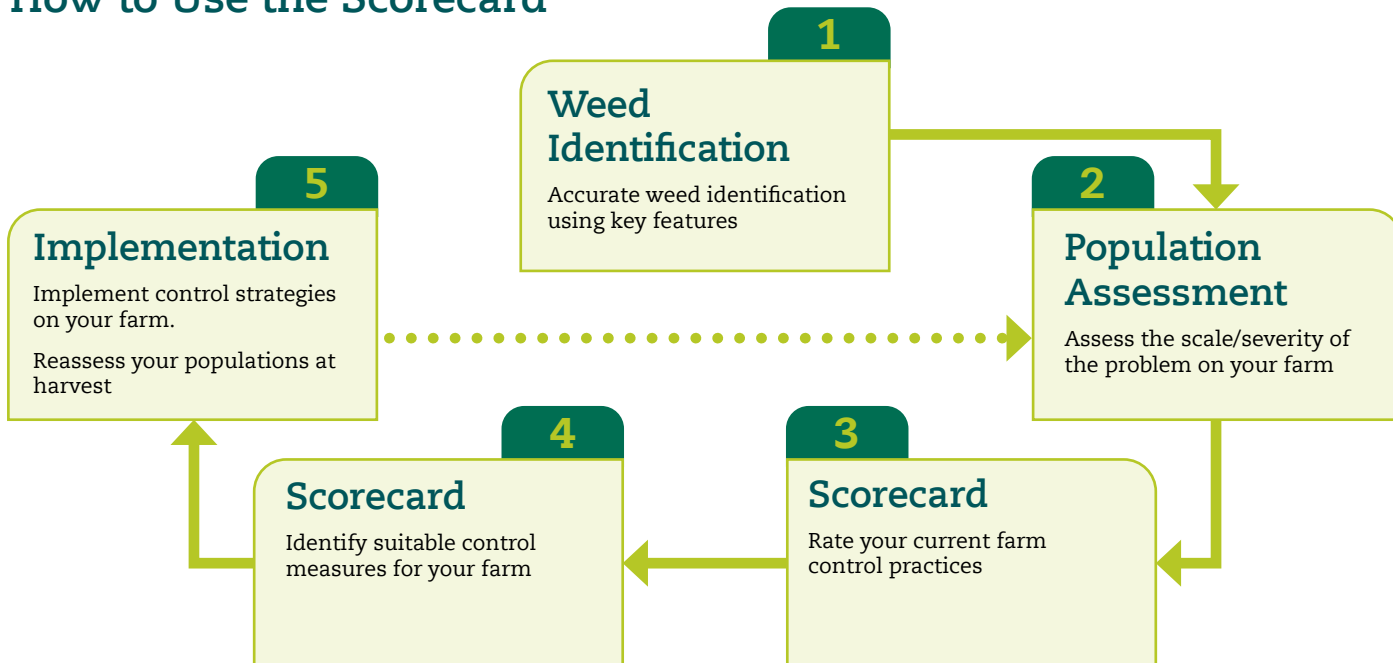
2

It will also assist you in rating your farm actions in controlling the weed and compare it to the best practices/actions that could be implemented on your farm.

3

Based on the scale/severity of weed(s) problems on your farm, the scorecard will guide you to effective measures that can be implemented and their effectiveness in containing problems.

How to Use the Scorecard



Plant Lifecycle: Wild Oats

	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Seed Shed												
Flowering												
Germination												

Wild Oats

Wild oats are common on most farms in Ireland and can cause a significant yield loss where they are present in high populations, 1 wild oat plant /m² = 1% yield loss.

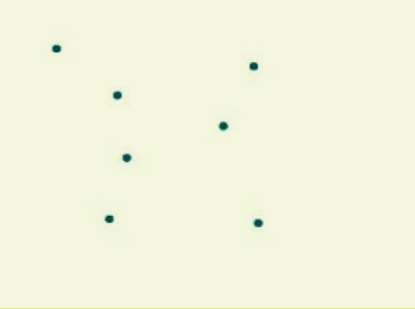
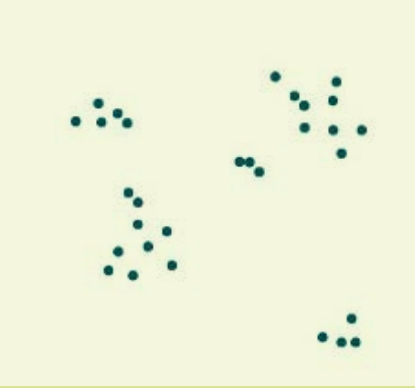
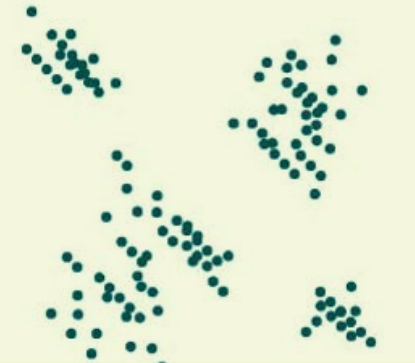
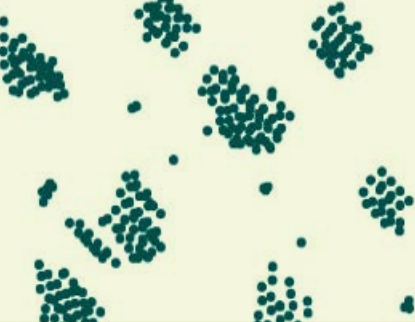
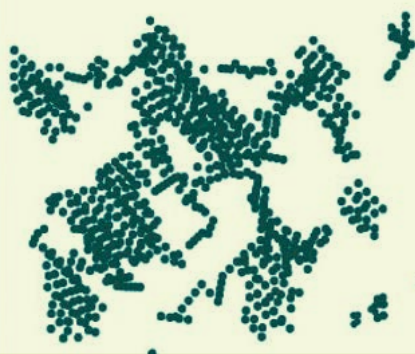
Key Features

- There are two types in Ireland; Spring Wild Oat, *Avena Fatua*, (the most common type) and Winter Wild Oat, *Avena Sterilis*.
- Both species can germinate from depth and are found in all types of establishment systems
- Spring wild oats - seeds shed singly when ripe
- Winter wild oat - seeds shed as a unit when ripe
- Teagasc, Oak Park have confirmed herbicide resistance in some populations in Ireland



Wild Oats

Weed Population Assessment

Score	Example	Weed Map	Comments
1			Small number of individual weeds present-mostly weed free area (90% or more weed free area) Hand roguing easily achieved for a weed free status Action Continue hand roguing every year
2			Small patches and a small number of individual plants scattered throughout the field (75% or more weed free area) Hand roguing difficult and time consuming to achieve acceptable level of weed control Action Extra measures are needed to reduce this population level
3			More patches and more weeds spread throughout the field with decreasing weed free areas (50% or more weed free area) Hand roguing impossible to achieve control Action Significant problem, management change required (see scorecard)
4			Very dense patches combined within the field with less weed free areas (25% or more weed free area) Crop yield compromised due to weed pressure Action Serious problem significant practice change needed (see scorecard)
5			Very high concentration across the field – patches merged with crop less visible/no weed free areas (<25% weed free area) Significant yield penalty and crop lodging Action Total change of management system needed (see scorecard)

Pre-harvest weed counts

ECT Project - Weed Score	0	1	2	3	4	5	6	7	8	9	10
Weed population assessment		1	2	3	4	5					
	Low level of weeds					Very high infestation					

Scorecard

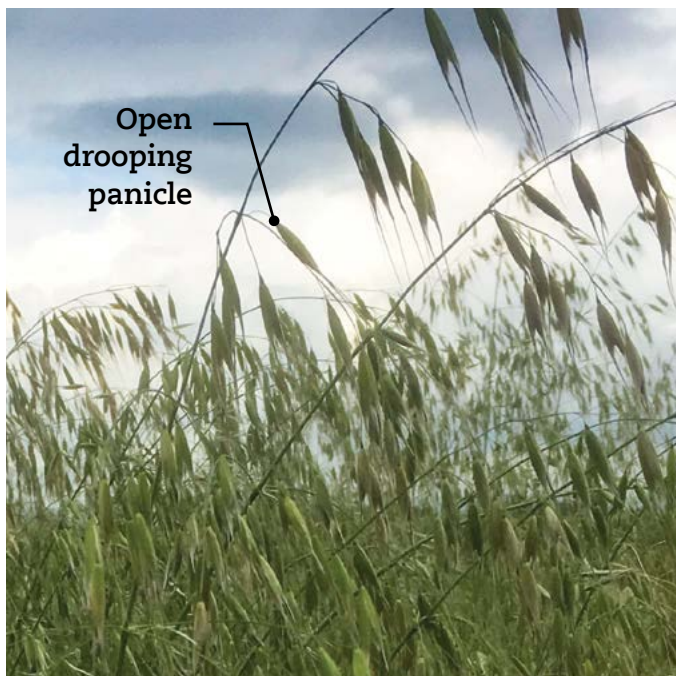
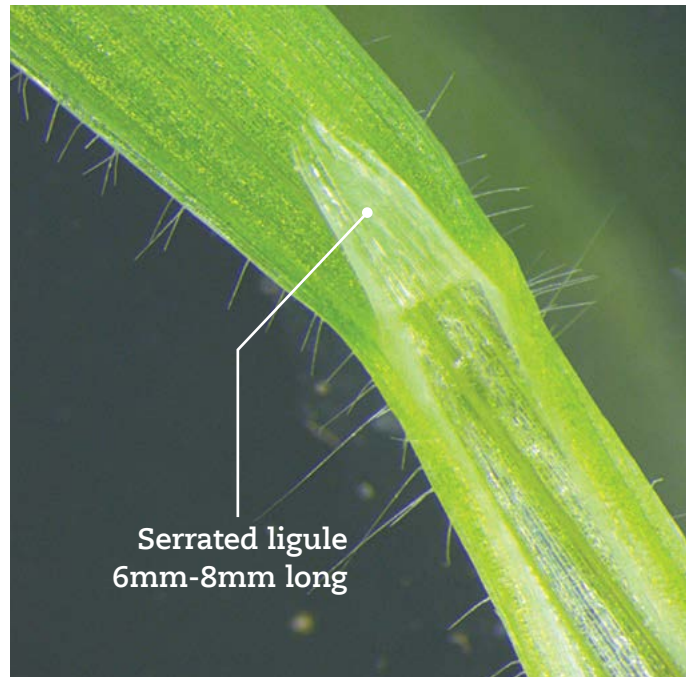
Instructions	Overall score rating	
1. Choose the rating for my current practice	0-15	Poor on farm control
2. Choose the rating for a desired practice for my system	15-20	Moderate on farm control
3. Add ratings to give the total scores	20+	Good on farm control
4. Use the overall score rating to rate my current practice and my target score		

Wild Oats Scorecard	My Current Score	My Target Score	
(Select one score from list below for each measure)			Score ratings 0-5 0 = no control 1 = poor control 2 = some control 3 = fair control 4 = good control 5 = excellent control
Rotation			
Winter or spring oats = 0			
Wheat, barley, rye, triticale = 1			
Non-cereal break crop = 2			
Stubble Management			
Stubble cultivation only (no glyphosate) = 1			
No cultivation, Glyphosate pre drilling = 1			
Stale seed bed (including glyphosate pre drilling) = 2			
Multiple stale seed beds (including glyhosate) = 3			
Machinery - Biosecurity			
Use machines never cleaned of weed seeds = 0			
Use machines rarely cleaned of weed seeds = 1			
Use machines cleaned regularly of weed seeds = 3			
Use machines cleaned daily of weed seeds = 4			
Farm- Biosecurity - Straw			
Import FYM produced from straw of unknown source = 0			
Import FYM from straw produced on farm = 3			
No import of FYM = 5			
Farm- Biosecurity - Seed			
Use home saved seed = 1			
Use hand rogued home saved seed = 3			
Use certified seed = 5			
Herbicide Choice			
Using herbicides with no activity on wild oats = 0			
Repeated use of herbicides with same Mode of Action (MOA) = 3			
Using herbicides with different MOA (year to year) = 4			
Using herbicides with different MOA (year to year) with hand rogueing = 5			
Total Score			

Weed Identification:

Wild Oats

Accurate wild oat identification is critical to achieving good control. Each plant has specific identifying characteristics with identification becoming easier when the plant is headed with mature seeds.



Video: Grass Weed Identification – Introduction

https://youtu.be/ryxAcf_CfaQ?si=TSjZ0yIp9b9chmYY



Video: Grass weed Identification – Wild Oats

https://youtu.be/v9CykxL_fk?si=kznxrnofww33vctT

Control Measures

Wild Oat Control Measure									Control Rating
Post-Harvest									
No post harvest cultivation followed by Glyphosate (at the 1- 2 leaf stage of weed)									★
Stale Seedbed– shallow (to a depth of 5cm) one flush of weeds.									★★
Multiple stale seedbeds & glyphosate (as above)									★★★
Sow Cover Crop - early after harvest for best establishment (open crops- e.g. phacelia + oats sown in August)									★★
Rotation									
Plant autumn non-cereal break crop - allowing change to herbicide mode of action									★★★
Plant a crop type allowing multiple herbicide applications (e.g. wheat versus barley)									★★
Sow spring break crop - allowing multiple stale seedbed/cover crop in the autumn and change herbicide mode of action									★★★
Sow spring cereal crop - allowing stale seedbed/cover crop establishment									★★
Sow short term ley (3 to 5 years)									★
Sowing									
Delay autumn planting									
Use competitive cultivars & varieties, e.g. hybrids									★
Increase seed rate by 15% to 20%									★
In Crop									
Crop walking & monitoring									★★★★★
Weed mapping – manually or precision									★★★★★
Capture ripe seed sample and test for herbicide resistance									★★★★★
Crop destruction before seed set e.g. patch spray glyphosate if heavily infested (early removal before seed shed)									★★★★★
Hand Roguing (low level of infection)									★★★★★
Mow for silage if heavily infested (early removal before seed shed)									★★★★★
Hygiene/Biosecurity									
Ensure grass weed problem fields are harvested and baled last									★★
Thoroughly clean down combine/baler (inc contractors machinery) entering/leaving badly infested fields									★★★★★
Prevent the return of organic material to tillage ground originating from straw from infected fields									★★★★★
Use certified seed									★★★★★
Or use own home-saved seed with known weed-free status (hand rogued)									★★★★

★	Poor Control	★★	Some Control	★★★	Fair Control	★★★★	Good Control	★★★★★	Excellent Control
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