Republic of Ireland: Annual Non-Organic Seed Authorisation Report for 2022

Authorisations to use seed and seed potatoes and vegetative propagating material not produced by the organic production method in organic farming

According to EU Regulation (EU) 2018/848, each member state should ensure that a database, in which seed, seed potatoes and vegetative propagating material produced by organic production methods, and respecting the general criteria for production of seed and vegetative propagating material can be registered and made available to users.





Prepared by the Soil Association
On behalf of the Department of Agriculture, Food and the Marine

March 2023

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Introduction

This is the seventh report produced by the Soil Association for the Department of Agriculture, Food and Marine, setting out the situation with regards to authorisations to use non–organic seeds issued by Irish organic control bodies to organic agricultural and horticultural operators in Ireland during the calendar year.

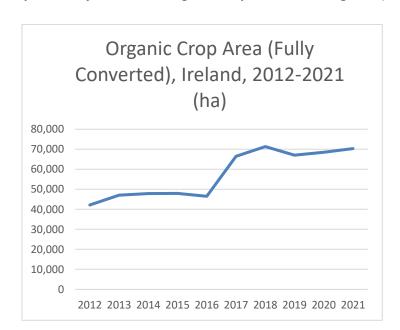
Purpose of the report

The non-organic annual seed authorisation report provides information on the quantities and varieties of non-organic seed used by organic farmers and growers in Ireland. This information is intended for use by the seed industry, producers, policy makers and organic control bodies (CBs) to increase use of organic seed and comply with EU regulatory requirements. The objective is to expand the diversity, quantity and quality of organic seed availability so that authorisations for the use of non-organic seed would only need to be given in extreme circumstances. The report also helps to make the sector transparent to buyers and suppliers of seed and consumers.

As a requirement of EU Regulation (EU) 2018/848, every Member State must produce an annual report publishing all authorisations (sometimes referred to as derogations) to use non-organic seed, non-organic seed potatoes and non-organic vegetative propagating material. For Ireland, the report is compiled by the Soil Association on behalf of the Department for Agriculture, Food and the Marine. It will then be sent to the European Commission and other Member States, and also made publicly available via the organic seed database (https://ie.organicxseeds.com/).

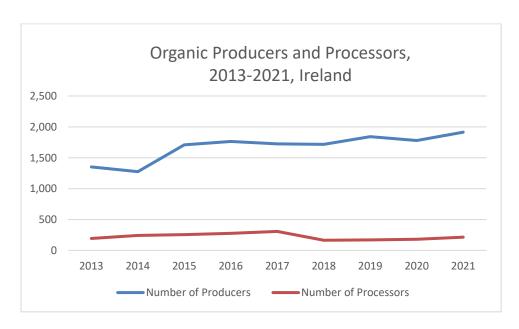
Context

Graphs 1 and 2 use data from *Eurostat*¹. The 53% increase in organic land area between 2016 and 2018 is noteworthy and the overall trend since 2012 is upwards. Data for 2022 is, at time of writing, unavailable.



Graph 1: Fully converted organic crop area, latest figures (ha)





¹ https://ec.europa.eu/eurostat/data/database

Table 1: Eurostat data underlying graphs 1 & 2²,³

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Fully converted land, (ha)	42,160	47,078	47,817	47,951	46,517	66,503	71,323	67,063	68,497	70,360
Producers	-	1,351	1,275	1,710	1,765	1,725	1,716	1,841	1,778	1,914
Processors	-	193	243	255	275	307	164	170	179	213

Summary of authorisations

The total number of non-organic seed, seed potato, and vegetative propagating material authorisations issued to organic farmers and growers in the Republic of Ireland during 2022 was **2,757**, an increase of 576 from 2021's figure of 2,181. Previous years were: 2,668 (2020), 2,020 (2019), 2,268 (2018), 2,063 (2017), and 2,096 (2016).

Varietal choice of seed is an ongoing concern; complying with the European Union's desire to reach 100% organic seed without compromising varietal choice, is likely to be very difficult. Increased levels of non-organic seed use are undesirable within the organic sector as it challenges a key intention of the new EU Organic regulation, which came into force 1st January 2022. It also risks creating two tiers of seed costs for farmers, potentially undermining public trust, despite the practical reasons that may be behind these differences. Continued progress in organic seed production and usage is important to allow the organic sector to comply with regulatory requirements, protect public integrity and trust in organic food, and support continued innovation in organic seed production.

This report is analysed in five main sectors: seed potatoes, arable/cereal crops, horticulture, fruit, and grass/forage/fodder crops.

² The corresponding section in the 2017 non-organic authorisations report contained an error for the number of processors. The actual position is healthier than reported.

³ Producer and processor figures for 2018-21 obtained from DAFM, all other figures from Eurostat

Seed Potatoes

In total 69 authorisations were issued for non-organic seed potatoes in 2022; an increase of 27 (64%) in the number of derogations as well as an increase in total weight of 82.6 tonnes (258%). The overall figures for the last four years are shown in Table 2 below.

Table 2: Non-organic seed potato usage 2019-2022 – broad changes

	2019	2020	2021	2022
No of varieties	18	15	16	25
No of auths	37	27	42	69
Total tonnes	70.84	59.27	32.07	114.70

The marked increase in tonnage compared with 2021 is due principally to additional authorisations of the *Orla* variety, where two operators increased their certified land area in order to double their production and organic *Orla* was not available from suppliers in the quantities required. Also Brexit has caused a number of issues with the supply so more farmers are having to source non-organic seed

Table 3 gives fuller details of the varieties authorised in 2022, compared with how these varieties fared in previous years.

After Orla, the varieties with the highest kg quantities were Francis, British Queens, Maris Bard and Charlotte.

The remainder of table 3 shows a varying picture from year to year; in the main these are small scale plantings of a range of different varieties.

The overall trend of increasing numbers of authorisations in the last two years may indicate that import complications following Brexit are continuing to limit availability of organic seed potatoes, and so more farmers are having to source non-organic seed with derogations. Looking ahead, we suggest that this situation should be monitored by the Ireland certification bodies to determine if there are ongoing issues with organic seed potato supply in 2023.

Table 3: non-organic seed potato varieties used in 2022, with amounts for these varieties compared with 2020 and 2021

	20)20	20)21	2022		
	auths	kg	auths	kg	auths	kg	
Orla	1	56,000	1	25,000	8	103,720	
Francis	-	-	-	-	2	2,700	
British Queens	2	100	4	620	8	1,971	
Maris Bard	-	-	-	-	1	1,250	
Charlotte	3	1,575	3	550	5	1,075	
Roseval	-	-	-	-	3	860	
Kelly	-	-	-	-	2	700	
Premiere	-	-	2	23	10	480	
Sarpo Mira	-	-	2	2,250	2	400	
Agria	-	-	-	-	2	310	
Alunis	-	-	-	-	2	300	
Solist	-	-	4	58	5	195	
Rooster	1	5	2	120	3	122	
Purple Rain	-	-	-	-	3	111	
Celebration	-	-	-	-	1	100	
Golden Wonder	-	-	-	-	1	100	
Saxon	-	-	-	-	1	100	
Home Guard	-	-	1	25	3	52	
Abby	-	-	-	-	1	50	
Sarpo Axona	-	-	-	-	1	50	
Prada	-	-	-	-	1	25	
BIM12499	-	-	-	-	1	10	
Nicola	-	-	-	-	1	10	
Carolus	-	-	-	-	1	6	
Records	-	-	1	1,000	1	2	

Arable and cereal crops

There was a significant increase (25%) in the number of authorisations for organic farmers to use non-organic seed in 2022, but only a small increase (2%) in the number of tonnes of seed. The total number of authorisations increased from 217 to 270, and the total tonnage rose from 261 tonnes to 267 tonnes.

Oats continue to be the most popular cereal crop, and account for 40% of the total tonnage of non-organic seed supplied under authorisations. However, authorisations have dropped from 109 in 2021 to 84 in 2022, and tonnages have fallen from around 200 tonnes in 2021, to 119 in 2022. This reflects a better balance in supply and demand for organic oat seed, perhaps facilitated by a more specific set of requirements from the marketplace.

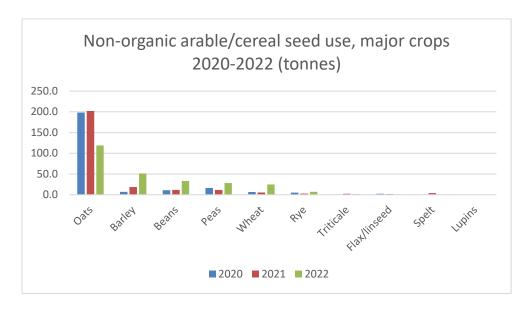
Unfortunately this improving trend is not repeated for wheat barley beans and peas, all of which have seen big increases in both authorisations and tonnages. Barley and beans have seen a doubling of authorisations and a tripling of tonnages. Peas have seen a doubling of both. Wheat authorisations have increased from 6 to 25, and tonnages from 5.5 to 24.9. All of these are above trend; it is not the case that the figures were unusually low in 2021. It may be that these are growing markets and the seed companies haven't had time to keep pace with production of organic seeds.

Volumes of rye and triticale derogations were very low. Authorisations for Flax/linseed have dropped slightly from a consistent demand for the last 2 years.

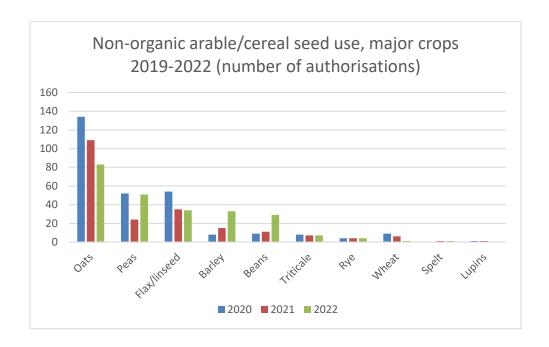
Table 4: Non-organic arable/cereal 2020-2022, comparison of selected species

	2020		2	021	2022		
	auths	tonnes	auths	tonnes	auths	tonnes	
Oats	134	197.93	109	202.03	84	119.20	
Barley	8	7.01	15	18.59	33	51.58	
Beans	9	11.00	11	11.70	29	33.15	
Peas	52	16.31	24	11.60	51	28.35	
Wheat	9	6.65	6	5.45	25	24.85	
Rye	4	4.98	4	2.95	4	7.00	
Triticale	8	0.86	7	2.60	7	1.52	
Wheat/Barley/Pea	-	-	-	-	1	1.10	
Flax/linseed	54	2.30	39	1.71	35	0.88	
Spelt	-	-	1	4.00	1	0.001	
Lupins	1	0.35	1	0.45	-	-	
Wheat > Durum	1	0.25	-	-	-	-	
Wheat > Einkorn	1	0.22	-	-	1	0.0002	
Wheat > Emmer	1	0.22	-	-	1	0.0003	
Totals:	282	248	217	261.08	272	267.63	

Graph 3: Non-organic arable /cereal seed – major crops (tonnes), 2020-2022



Graph 4: Non-organic arable /cereal seed – major crops by number of authorisations



Horticulture

The horticulture seed data covers a much larger number of crop lines and varieties than the other categories, so for the sake of brevity and clarity we have not included all of them in this report. Table 5 is a simplified summary for the major crop lines, including those which have more significant numbers of authorisations. For consistency, some lines which have relatively few authorisations have been retained in the table if they were reported on last year.

Vegetable seed is sold by kg and by seed count and therefore most of the crop lines in Table 5 include authorisations in both formats. Single Seed Weights can vary across different varieties within a crop heading and so for accuracy, we have retained the original units of measurement from the authorisation reports and we have not attempted to convert them into a combined total in kg or seed count.

Total number of authorisations

The number of individual authorisations (for the crops in Table 5) rose from 235 in 2021 to 362 in 2022, a 54% increase. The general pattern is that these authorisations are evenly spread across the whole range of crop lines and are typically for relatively small packets of seed. This may reflect a trend of increasing demand for seed from new entrants to the sector on the smaller agroecological and organic farms and market gardens

Frequency of authorisations by crop

In 2022 the crop lines with the largest frequency of single authorisations of non-organic seed were; Lettuce (58 authorisations), Beetroot (37), Tomato (33), Broccoli (28), followed by Squash (all types including butternut) (23). Within each crop line, the majority of those authorisations are distributed fairly evenly across different, single varieties. For example, the 58 total authorisations for lettuce are spread across 39 individual varieties, most of which have only one authorisation each.

The list also shows how the range of choice of organic varieties can vary greatly between different vegetable crops. For organic leeks, for example, there is a good range of different varieties available to growers and so typically we do not see many derogations. In some crop lines (e.g. carrots and lettuce) the choice of organic varieties is more restricted and so growers are more likely to want non-organic alternatives.

Quantities of seed

Again, it may not be meaningful to draw out year-to-year trends here, given the small number of data points and how they are spread across a very wide range of horticultural crops. Comparisons can be skewed significantly if one of the larger growers changes their cropping plan in a particular year. The marked increase in beetroot quantity in 2022 was for one F1 variety (Pablo) and is an example of this sort of spike in the trend.

Conclusions

Given the large number of different crop lines and varieties and the relatively small size of the data set, it is difficult to draw meaningful conclusions as to trends in specific crops and varieties. The organic horticultural market in Ireland is still small, and therefore individual decisions on seed purchases by one or two farms can have a large impact on the overall picture.

Table 5: Non-organic vegetable seed authorisations in Ireland, 2021-2022: selected crops

•		2021		2022				
	auths	seeds	kg	auths	seeds	kg		
Asia Greens	7	-	6.600	12	-	10.350		
Beetroot	17	110,613	3.45	37	2,870,300	6.036		
Broad Bean	5	100	13.000	2	-	5.200		
Broccoli	14	967,400	0.006	28	581,710	1.400		
Brussels Sprout	4	10,045	0.006	7	12,620	-		
Cabbage, all	8	38,910	-	22	49,400	0.005		
Carrot	18	41,146,000	0.100	22	59,875,540	0.671		
Cauliflower	10	42,500	-	14	15,150	0.016		
Celeriac	1	20,000	-	1	150	-		
Celery	-	-	-	12	74,950	0.005		
Courgette	1	1,000	-	14	1,241	0.082		
Cucumber	2	15	0.004	7	383	-		
French Bean	5	400	0.500	2	-	1.100		
Kale	25	133,280	6.700	22	146,495	1.592		
Kohl Rabi	2	500	-	-	-	-		
Lettuce	33	4,114,128	0.020	58	2,218,220	1.146		
Onion	6	12,200	20.454	12	30,670	69.507		
Pak Choi	11	22,500	0.264	3	2,530	0.250		
Parsnip	12	1,246,000	0.175	16	2,065,500	0.020		
Pea	4	600	1.000	4	-	2.530		
Pepper, Chilli	2	70	-	6	178	-		
Pepper, Sweet	2	16	-	-	-	-		
Runner Bean	-	-	-	1	5	-		
Squash	26	5,930	-	23	1,828	0.014		
Tomato	20	1,074	-	32	1,178	0.14		

Totals:

235

357

Fruit

Similar remarks apply to fruit as to horticulture: the market is small and individual decisions can result in big fluctuations year-on-year.

Table 6 shows the main 24 top fruit and soft fruit species compared with 2020 and 2021. The total number of authorisations for those 24 crops was 171, compared with 102 in 2021 and 113 in 2020 which suggests an upward trend in top and soft fruit plantings overall. There are few suppliers of organic fruit trees and plants and supply is limited, so we would expect to see frequent authorisations of non-organic stock.

There was a notable increase in non-organic apple tree authorisations, from 18 authorisations of a total of 206 plants in 2021, to 50 authorisations of a total of 12,628 plants in 2022. The majority of this increase (see the accompanying data spreadsheet) is accounted for by 4 single authorisations of rootstocks for grafting, which suggests one or two new or replacement plantings in larger orchards.

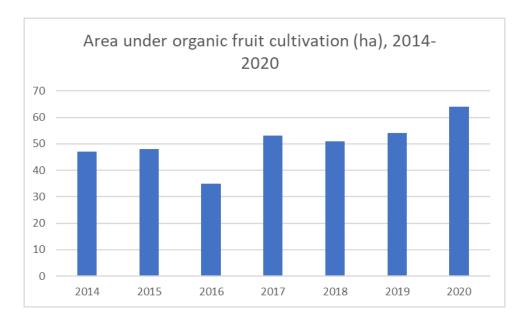
Graph 5 suggests a broad upward trend in the land area used for organic fruit growing but at time of writing, the Eurostat data was only available to 2020.

Table 6: Non-organic fruit authorisations in Ireland, selected crops, 2020-2022

		2020			2021			2022	
	auths	plants etc	Other	auths	plants etc	other	auths	plants etc	other
Apple	37	379	-	18	206	-	50	12,628	-
Bilberry	-	-	-	1	25	-	-	-	-
Blackberry	1	3	-	2	15	-	3	60	-
Blackcurrant	4	258	-	14	164	-	4	16	-
Blueberry	3	7	-	3	2,070	-	5	60	-
Cherry	4	269	-	1	730	-	12	818	-
Elderberry	1	50	-	1	5	-	-	-	-
Fig	3	6	-	2	2	-	2	2	-
Gooseberry	2	7	-	5	70	-	5	41	-
Jostaberry	-	-	-	-	-	-	2	12	-
Magnolia Berry	-	-	-	-	-	-	1	-	20 sds
Medlar	-	-	-	-	-	-	2	10	-
Mulberry	-	-	-	-	-	-	4	20	-
Peach	1	3	-	2	2	-	4	20	-
Pear	6	18	-	5	21	-	6	285	-
Physalis	-	-	-	-		-	1	-	100 sds
Plum	9	112	-	4	8	-	16	320	-
Quince	-	-	-	-	-	-	3	7	-
Raspberry	14	644	-	12	979	-	18	805	-
Redcurrant/Whitecurrant	2	6	-	4	35	-	7	62	-
Rhubarb	3	100	0.03 kg	9	1,420	-	8	277	-
Sea Buckthorn	-	-	-	-	-	-	1	1	•
Strawberry	22	19,245	-	17	4,854	-	16	2,870	-
Tayberry	1	2	-	2	17	-	1	10	-

Totals: 113 102 171

Graph 5: Area under organic fruit cultivation (fully converted and in-conversion), 2014-2020⁴



⁴ https://ec.europa.eu/eurostat/data/database Data only available to 2020

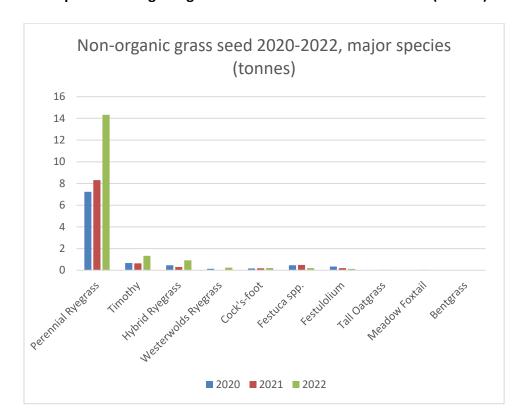
Grass, forage and fodder crops

Grass

There was a large increase in total quantities of grass seed (60% by tonnes, 15% by number of authorisations), with most of the increase coming from Perennial Ryegrass seed, which remains the main grass seed used. Most other species showed reductions in quantities from low bases reflecting possibly the effect of the summer drought on reseeding policy but also a move towards simple mixes.

Table 7: Summary of non-organic grass seed authorisations in Ireland, 2020-2022

	2020		20	021	2022		
	auths	tonnes	auths	tonnes	auths	tonnes	
Perennial Ryegrass	273	7.23	214	8.31	347	14.33	
Timothy / Cats Tail	73	0.67	47	0.86	102	1.34	
Hybrid Ryegrass	9	0.46	7	0.30	17	0.92	
Meadowgrass	48	0.33	89	0.63	32	0.38	
Westerwolds ryegrass	3	0.14	-	-	1	0.24	
Cock's-foot (Dactylis)	19	0.16	18	0.18	13	0.21	
Fescue (Festuca spp)	48	0.46	29	0.50	8	0.19	
Festulolium	28	0.34	14	0.20	4	0.12	
Sainfoin	5	0.19	1	0.11	5	0.08	
Tall Oatgrass	14	0.01	26	0.03	13	0.01	
Meadow Foxtail	1	0.01	16	0.03	1	0.01	
Bentgrass	1	0.00	4	0.00	1	0.0002	
Italian Ryegrass	3	0.04	-	-	-	-	
Totals:	525	10	465	11	544	18	



Graph 6: Non-organic grass seed authorisations 2020-2022 (tonnes)

Fodder and forage

Quantity of fodder crops were almost double that of 2021 with 26% more authorisations. This was particularly due to an increase of red and white clover usage. The increase in animal feed prices and a drive to more self-sufficiency are the likely triggers for this increase. Vetches, commonly used in whole crop mixes also showed an increase. Last years increase in forage brassicas was repeated although the big increases in Forage Kale and Radish were reversed. The increases in Forage Rape and Stubble turnips are likely due to response to the summer drought and the need for quick growing autumn forage for livestock.

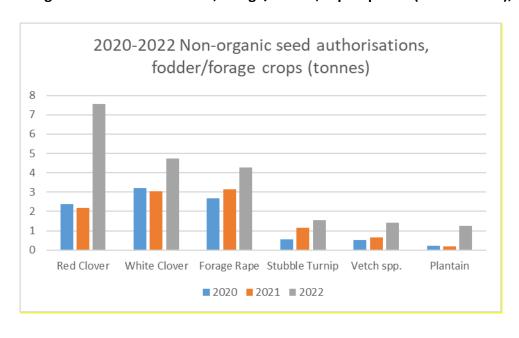
A higher demand for seed (both organic and non-organic) has been compounded by shortages in worldwide supply over the last two years, due to low stock levels in Europe as well as fewer exports from major producers in New Zealand and North America. More farmers will need to use non-organic alternatives when the market supply is restricted.

Drought tolerant species common in Herbal leys such as Chicory and Plantain did also show significant increases, again highlighting the change in farming practice as they exhibit both animal and soil health benefits as well as deep rooting drought tolerance.

Table 8: Summary of non-organic forage and fodder seeds 2020-2022

		2020	2	2021	2022		
	auths	kg	auths	kg	auths	kg	seeds
Alfalfa (Lucerne)	6	20.17	9	83.08	4	14.88	
Alsike Clover	52	154.69	93	411.49	49	220.72	
Bird's-foot-trefoil	20	56.01	14	72.20	2	16.32	
Black Medick (Yellow Trefoil)	31	102.97	54	81.73	7	9.78	
Burnet	31	124.63	14	57.63	10	70.76	
Chicory	70	304.07	45	221.40	87	816.62	
Crimson Clover	3	13.50	15	139.22	30	199.10	
Egyptian Cover (Berseem)	1	4.50	1	24.00	5	72.00	
Plantain	60	228.53	24	172.47	82	1,243.82	
Red Clover	81	2,363.38	49	2,166.69	175	7,560.22	
Sainfoin	5	194.00	1	105.00	5	78.76	
Subterranean Clover	1	1.00	3	101.00	1	0.08	
Sweet Clover	19	62.84	7	12.13	1	32.02	
Vetch spp.	7	511.53	12	661.44	12	1,415.00	
White Clover	307	3,217.06	323	3,046.60	355	4,740.94	
Brassica & other species:							
Fodder Beet	1	4.00	3	28.45	4	21.40	300,000.000
Fodder Kale	26	270.25	27	770.80	15	127.20	
Fodder Radish	13	168.84	11	209.37	8	66.65	
Forage Rape	86	2,663.10	63	3,149.60	115	4,280.56	
Stubble Turnip	31	547.20	29	1,141.00	43	1,553.93	
White mustard	2	56.00	9	173.82	7	199.50	
Totals:	853	11,068	806	12,829	1,017	22,732	

Graph 7: Non-organic seed authorisations, forage/fodder, top 6 species (over 1 tonne), 2020-2022



The Irish organic seed database: ie.organicxseeds.com

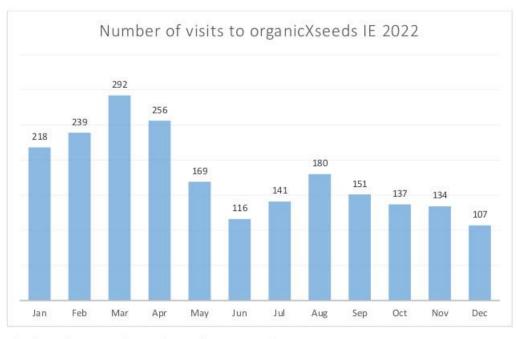
This database is a requirement of EU Regulation (EU) 2018/848 which regulates the use of seeds and seed potatoes in organic farming. The database is funded by The Department of Agriculture, Food and the Marine and managed by the Soil Association, working in partnership with FiBL.

There are currently (February 2023) 20 seed companies registered in the database who are able to supply organic seed and/or organic seed potatoes to organic farmers and growers in Ireland (an increase from 16 registered suppliers at the start of 2022).

Seed suppliers can register species of organic seed and/or organic seed potatoes by variety via a login and password. They are required to update their seed listings in accordance with current availability.

Organic producers are legally obliged to use organic seed that is registered in the database. Registered control bodies are legally obliged to check the database for organic seed availability before issuing authorisations to use non-organic seed.

Statistics are provided annually by <u>FiBL</u> relating to the usage of the Organic X Seeds website (which operates across several EU member states) and are shown in Graphs 9 and 10.



Graph 8: OXS Usage Republic of Ireland 2022

The share of OXS IE to the total visits of organicXseeds amounts to 1,5%.

Graph 9: OXS Usage All Countries 2022



Explanation of authorisation data

In accordance with Article 12 of Commission Regulation (EC) No 1452/2003 the report shall contain, for each species concerned by an authorisation according to Article 5(1), the following information:

- The scientific name of the species and the variety denomination
- The English or common name of the species and the variety denomination
- The justification for the authorisation indicated by a reference to Article 5(1)
- The total number of authorisations
- The total quantity of seed or seed potatoes involved
- The chemical treatment for phytosanitary purposes as referred to in Article 3(a)

Authorisation according to Article 5(1) for seed (agricultural crop)

Column 1

Scientific name of the species

Column 2

English or common name of the species

Column 3

Variety name

Column 4

Justification / Reason for authorisation

The justification for the authorisation is indicated by a reference to Article 5(1) (a), (b), (c) or (d)

- (a) If no variety of the species, which the user wants to obtain is registered in the database provided for in article 6;
- (b) If no supplier is able to deliver the seed or seed potatoes before sowing or planting in situations where the user has ordered the seed or seed potatoes in reasonable time;
- (c) If the variety which the user wants to obtain is not registered in the database, and the user is able to demonstrate that none of the registered alternatives of the same species are appropriate and that the authorisation therefore is significant for his production;
- (d) If it is justified for use in research, test in small-scale field trials or for variety conservation purposes agreed by the competent authority of the Member State;

Column 5

The chemical treatment for phytosanitary purposes

There are currently no chemical treatments allowed for phytosanitary purposes in Ireland.

Column 6

The total number of authorisations for each variety

Column 7

The total number of authorisations for each species

Column 8

The total quantity of seed, plants or seed potatoes (by variety)

For each variety it is stated, how many units of seed or vegetative propagating material have been authorised. Where two or more authorisations have been granted, the amounts have been added.

Column 9

The total quantity of seed or seed potatoes (by species)

Seed authorisation data

The accompanying document - "Ireland Non-Organic Seed Authorisation Report for 2022 Data" - summarises the authorisations granted in 2022 by all of the Irish organic control bodies.

There are some anomalies in the way that the data is collected by the control bodies. For example, the same variety of a particular crop may have some entries recorded by the number of seeds or plants and others by the weight of the seed. Where this has occurred, the entries have been added to give a total by each unit of measurement. Although the control bodies are aware of this, they often receive the request for authorisations in various units from the producer who in turn reads the information as provided by the seed company.

In addition, the A-D "reason/justification" codes which are assigned to each authorisation have been recorded as presented by the control bodies, even though it is evident that these are often assigned incorrectly.

Acknowledgements

Report compiled by Martin Parkinson, Jerry Alford, John English, and Adrian Steel. Data compiled by Martin Parkinson. Seed working groups chaired by Ben Raskin and Adrian Steele.