# UK Annual Non-Organic Seed Authorisation Report for 2020

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

According to European Commission regulation (EC) No 889/2008 of 5 September 2008, 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 Defra
March 2021

## Contents

## Purpose of the report

The UK non-organic annual seed authorisation report provides information on the quantities and varieties of non-organic seed used by organic farmers and growers. 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 relevant 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 European Commission Regulation (EC) No 889/2008 of 5 September 2008, 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 the UK, the report is compiled by the Soil Association on behalf of Defra. It is then sent to the European Commission and other member states, and also made publicly available via the *Organic X Seeds* website (https://www.organicxseeds.co.uk/).

## Market context

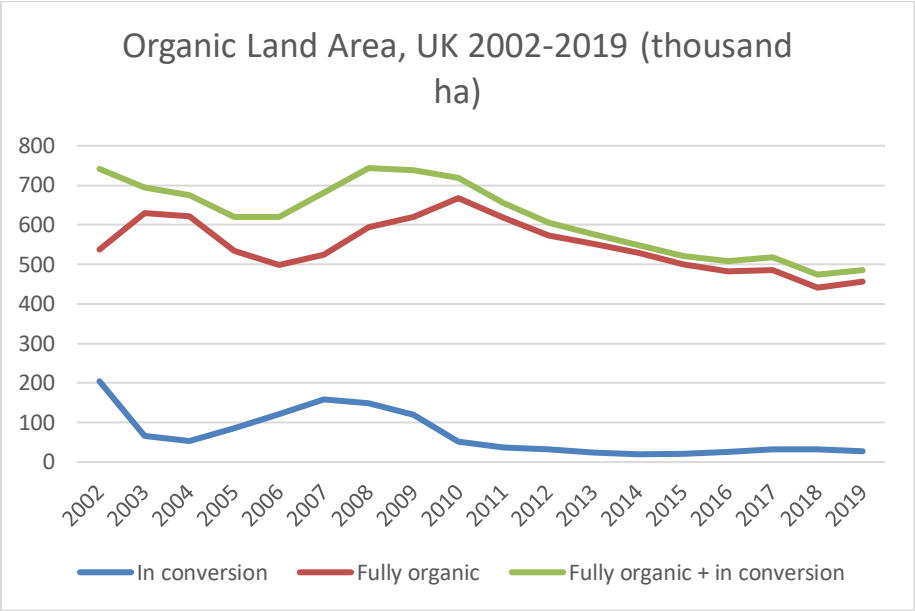
Everything was dominated by the COVID pandemic in 2020, and a full account of its effects and implications is not yet possible. However, the sudden change in food-shopping behaviour brought on by lockdown, is very likely to have played a part in the notable growth in sales of organic products (+12.6%). Much of this accounted for by the estimated 17-18% increase in organic home delivery/box scheme take-up.

Altogether, sales of organic products in the United Kingdom have experienced nine years of consecutive growth with organic now worth £2.79 billion[1].

According to the most recent statistics released by Defra (for 2019), the total area of organic and in-conversion land in the UK saw a small increase ( 2%) between 2018 and 2019 – although the area in conversion has shown a fall (15%). The longer-term statistics for land area are shown in Graph 1.

[1] Further detail and discussion can be found in the Soil Association's *Organic Market Report 2021*: https://www.soilassociation.org/certification/market-research-and-data/the-organic-market-report-2021/

**Graph 1: Organic land area, 2002-2019**




## Wider context

The final details the UK's working relationship with the EU are not yet known, but it remains the intention of Defra to continue recording organic data in broadly the same way as when under the EU aegis. The remarks made in last year's report therefore still apply and are re-iterated below.

Varietal choice of seed remains an ongoing concern. The ultimate aim must be to reach 100% organic-seed-for-organic-production while still maintaining the varietal choice available to growers; but how to reach this goal is unknown. Increased levels of non-organic seed use are undesirable within the organic sector as it challenges a key intention of the EU regulation. It also risks creating two-tiers of seed costs for farmers risking undermining public trust, despite the practical reasons that may be behind such an increase. Continued progress in organic seed breeding, production and usage is important to allow the organic sector to comply with regulatory requirements, protect public integrity and trust in organic food, and facilitate organic seed innovation. There are however some signs that innovation in organic variety testing in the UK is increasing – an example is the Innovative Farmers field lab in Oxfordshire which is testing a range of wheat varieties under organic growing conditions alongside a number of commercial variety trials. In addition CHAP is starting to look at resilience as a key criteria for arable crop breeding.

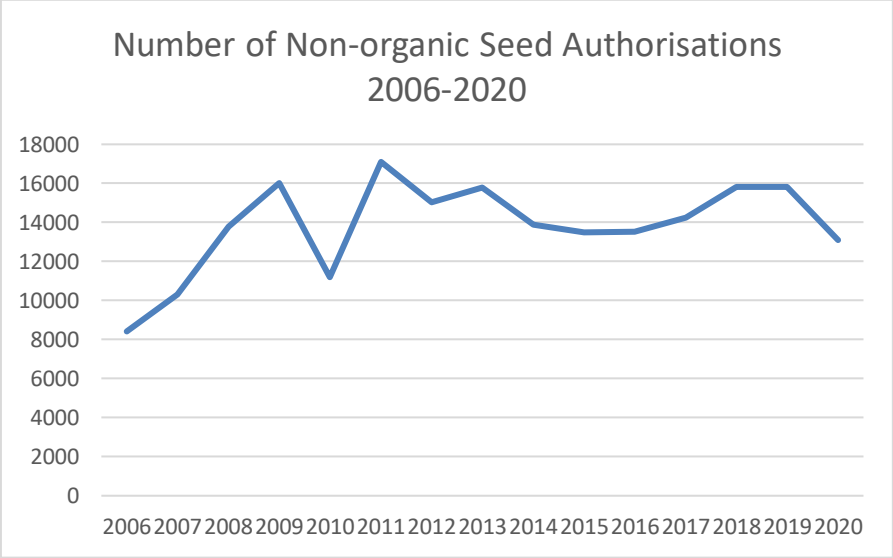
The authorisation report is analysed in six main sectors: Seed Potatoes, Arable / Cereal crops, Horticulture, Fruit, Grass, and Forage / Fodder crops.

## Summary of authorisations

The total number of non-organic seed authorisations issued to organic farmers in the United Kingdom decreased notably from 15,783 in 2019 to 13,106 in 2020.The total of authorisations fluctuates from year to year, with the high point of the last ten years being 17,101 in 2011.

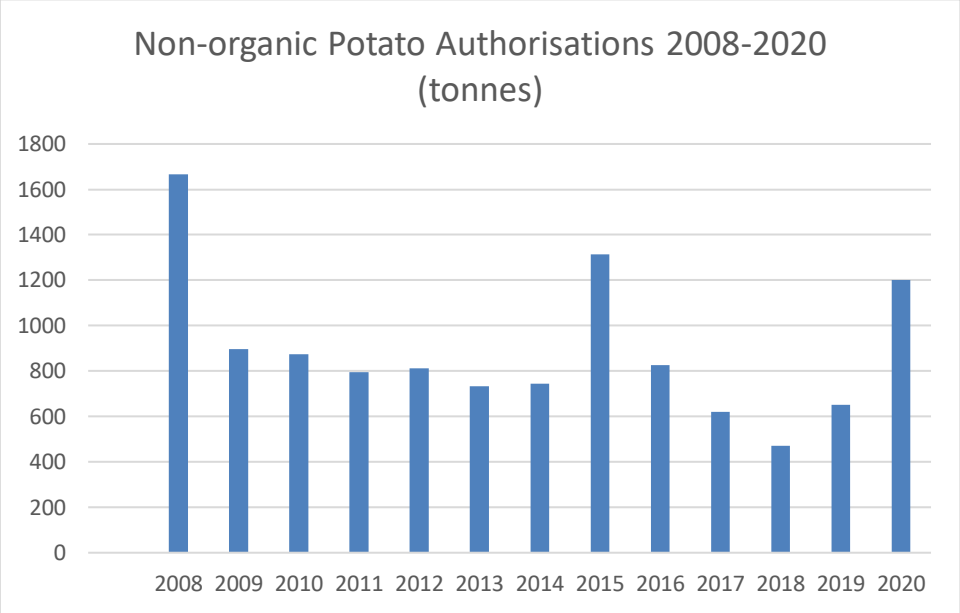
As noted earlier, the UK is aiming for a decline in the number of authorisations. However, in the medium term, any increase can be a positive indicator of increasing consumer demand and/or increase in organic land area. Therefore it is difficult to give any compelling interpretation of the long term variations shown in Graph 2. In addition, a glance at the detailed data (on the spreadsheet which accompanies this report) will show that many authorisations, each of a small amount, are given for ornamentals. Careful analysis of this sector is beyond the brief of this report, but the general impression is of a healthy market which indicates increasing awareness among the public of the benefits of organic.

**Graph 2: Non-organic seed authorisations, 2006-2020**

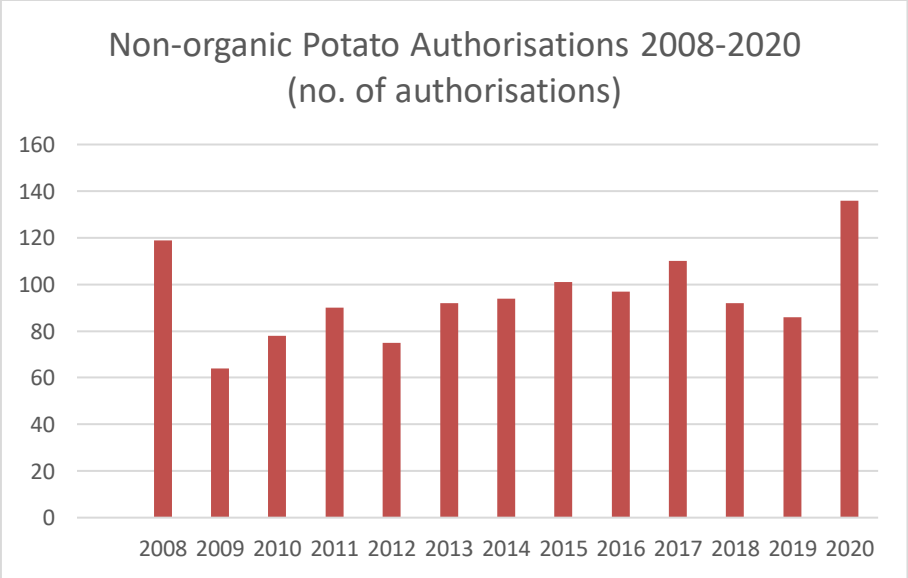


## Seed Potatoes

**Graph 3: Non-organic seed potato authorisations, 2008-2020**




**Graph 4: Non-organic seed potato authorisations, 2008-2020**




2020 has seen a significant increase in the number of authorisations (+60%) reaching 136, a stark contrast to the steady reduction observed since 2017. The volume of authorisations almost doubled (+84%) taking tonnage to a level similar to that seen in 2015. Several instances of high disease loading were reported on organic seed potato which may have contributed to this significant increase. Concerns over seed import/export issues coming into effect Jan 2021 due to Brexit may

have prompted an earlier purchase of seed than usual. If this is the case, we can anticipate lower figures for both number and volume of authorisations in 2021.

Standard varieties such as Maris Peer, Valor and Jersey Royal whilst still popular were displaced by Triplo, Lady Balfour and Alexia which comfortably occupied the top three slots by weight. Alexia matched last year's highest volume potato, Maris Peer, for weight at 242 tonnes, with Lady Balfour and Triplo significantly exceeding (270 tonnes and 294 tonnes respectively). Although there was an increase in volume across all the varieties the top 3 varieties alone comprise nearly 70% of the increase in volume seen this year. Valour and Charlotte had the highest number of authorisations at 9 each.

It is, as always, difficult to tie our information on authorisations to levels of area grown, both for organic potatoes as a whole and to areas of individual crop variety, so it is not always possible to say for certain whether an increase in authorisations is due to less organic seed being available or higher demand for the variety.

Varietal choice remains a particularly important driver for organic growers, with ongoing issues on the availability and authorisation of copper use. In 2020 an Emergency Authorisation for copper was not approved for the devolved nations of Scotland, Wales and NI, and only came very late in the season in England. This year (2021) it is anticipated that copper almost certainly will not be authorised at all. Quantities of blight resistant varieties are therefore likely to increase in 2021 however advance purchasing in 2020 in preparation for Brexit may cloud this trend. Another issue influencing varietal choice is the current lack of clarity whether varieties grown from the EU list will be permitted for sale in the UK.

*Maris Peer* has seen a substantial decrease in volume (-34%) from last year whilst *Valor* has increased in popularity – a 50% increase in volume despite only 2 additional authorisations. *Valor* is seen as a reliable all-round white variety that can deliver yield, bakers, drought tolerance, some blight resistance and low bruising risk.

*Jersey Royal*, *Jester*, *Rooster* and *Athlete* all had a similar volume of around 100 tonnes all increases on last year. *Jester*, not to be confused with the purple variegated variety in USA, is a salad potato with good resistance to virus, powdery scab and common scab.

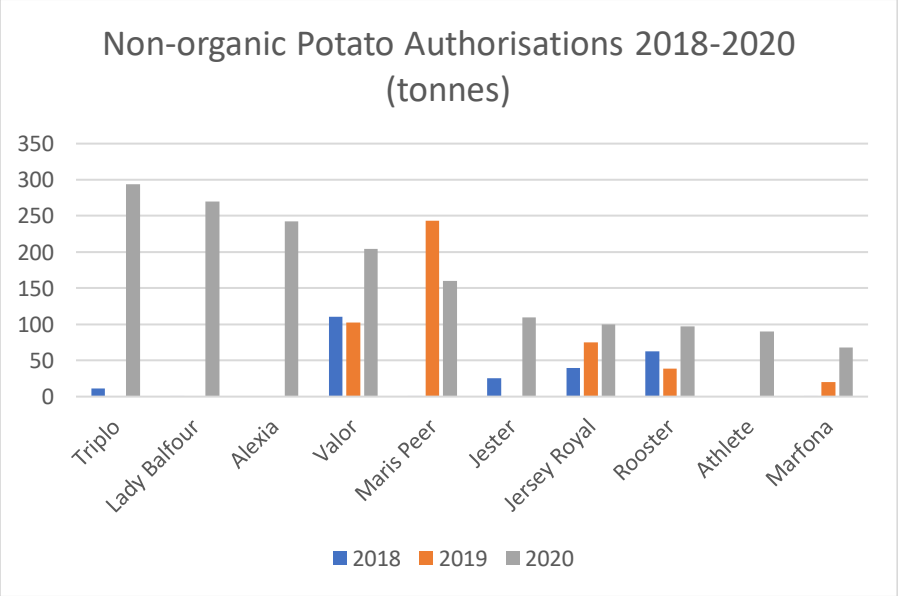
*Athlete*, a salad potato from Agrico, is gaining traction at 90,500 tonnes likely due to its excellent disease resistant properties especially against blight. Further down the list other Agrico varieties *Twinner*, *Twister* and *Jacky* are establishing themselves perhaps for similar reasons.

*Triplo*, *Lady Balfour* and *Alexia* dominated this year in terms of volume. *Triplo* at nearly 300,000 tonnes, popular in the French fries market, has good resistance against virus and PCN but poor resistance to late blight. *Lady Balfour*, a very high-yielding organic variety, was close behind at 270,000 tonnes making a resurgence. At the time of writing no detailed information could be found on the *Alexia* variety.

**Table 1: Non-organic seed potato authorisations issued to UK organic farmers 2017-2019: Top 16 varieties (those over 20 tonnes in volume)**

| Variety | 2018 | | 2019 | | 2020 | |
|---|---|---|---|---|---|---|
| | auths | tonnes | auths | tonnes | auths | tonnes |
| Triplo | 3 | 11.52 | - | - | 6 | 294.00 |
| Lady Balfour | 3 | 0.10 | - | - | 3 | 270.00 |
| Alexia | - | - | - | - | 2 | 242.00 |
| Valor | 11 | 110.23 | 7 | 102.35 | 9 | 204.00 |
| Maris Peer | 1 | 0.07 | 4 | 243.00 | 2 | 160.00 |
| Jester | 2 | 25.00 | - | - | 2 | 109.50 |
| Jersey Royal | 1 | 40.00 | 1 | 75.00 | 2 | 100.00 |
| Rooster | 2 | 63.00 | 2 | 39.00 | 2 | 97.00 |
| Athlete | - | - | - | - | 4 | 90.50 |
| Marfona | 1 | 0.01 | 2 | 20.00 | 5 | 68.00 |
| Kelly | - | - | 1 | 25.00 | 2 | 52.50 |
| Acoustic | 3 | 11.00 | 1 | 3.00 | 3 | 45.00 |
| Cara | - | - | 2 | 7.75 | 3 | 35.00 |
| Charlotte | - | - | 2 | 7.50 | 9 | 28.05 |
| Harry | - | - | - | - | 1 | 25.00 |
| Orla | 1 | 0.60 | 3 | 18.50 | 3 | 23.00 |

**Graph 5: Top varieties (by volume) of non-organic potato seed, 2017-2020**



## Arable and cereal crops

Following a 15% drop in 2019, there was a similar pattern in 2020 with a 30% drop (compared with 2019) in the number of non-organic arable and cereal seed authorisations, with a 9% fall in tonnages (5% in 2019). Tonnage totalled 1,174, down from 1,285 in 2019, and authorisations were 500, down from 709 in 2018. This continued downward trend is not consistent with Defra organic farming statistics, which show that organic arable areas increased in 2019 by 5% and significantly, in-conversion arable cropping up by 32%. This decrease in derogations associated with higher arable area reflects the increasing ability of the supply chain to supply organic seed.

Spring arable crop derogations in 2020 saw a similar tonnage to 2019 but that hides a 70% rise in cereals derogations as there was a reduction of 60% in derogations for pulse crops. However, this increase in cereals just returned tonnages to 2017 and 18 levels. Winter crop derogations fell by 10% following a similar fall in 2019. This reflects the poor planting conditions in autumn 2019 which meant that farmers were unable to fulfill their planting plans, possibly changing to spring cereal cropping and carrying over seed where possible. However, although the tonnages are similar to those of 2017 and 2018, derogation numbers are lower, possibly reflecting increasing farm size.

The tonnage of non-organic spring oats, which in 2019 fell significantly down to just 65.7 tonnes, with a 58% decline in authorisations has risen again to over 100 tonnes. Spring barley rose from 141 tonnes to its 2019 level of 250 tonnes but with a 30% fall in authorisations. Spring wheat tonnages also moved back upwards by 40%.

The 60% reduction in derogations for pulses was due to peas dropping from 400t down to 168t. Last years results were thought to be due to a switch by some farms to growing arable silage crops with legumes, in order to make up for a poor year for fodder in 2018. A better fodder year in 2019 and cheap availability of imported protein feeds has dampened down interest in home grown protein. The role of beans, peas and vetches to provide home grown protein should not be ignored.

The biggest increase in derogations for all crops was for Winter Oats increasing by 600% to 112 tonnes. This may be partly due to the weather: freak weather prior to harvest left a large quantity of oats on the ground. The variety *mascani* remains the most popular (with nearly 98.5 t of the 112 t total authorisations) because it suits the requirements of the human consumption market, is resistant to diseases and lodging, and there is a lack of suitable alternative varieties. Almost half of the *mascani* authorisations were for seed growers reflecting the concerns on grain quality following an unusual year.

Other than oats, there was a reduction in autumn sown cereals of 40% to just 208 tonnes, with winter barley being the most popular - although sales were 30% lower than 2019 but with the same number of derogations. The favourite variety was one with good organic characteristics such as BYDV resistance and a large competitive plant canopy, the lack of both has restricted winter barley's role in organic farming.

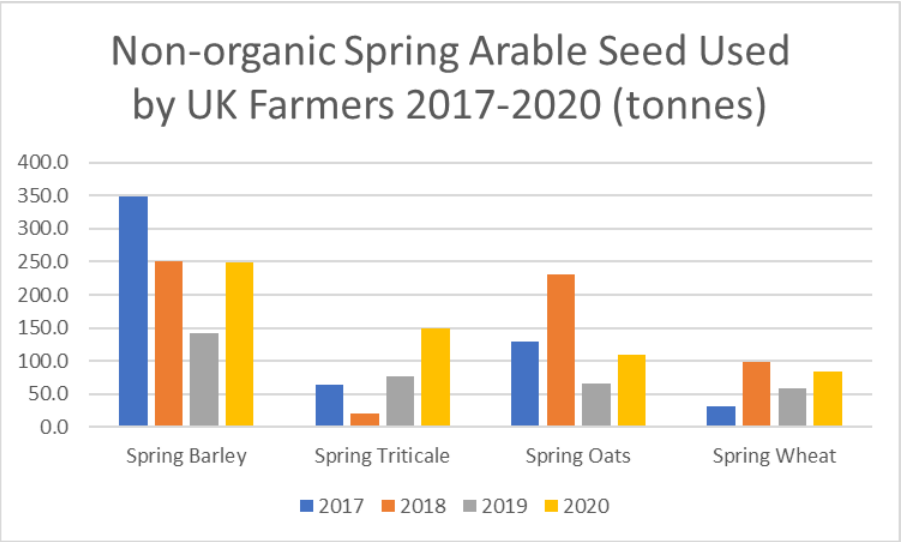
Winter wheat tonnage fell from 107 tonnes to 59 tonnes, with authorisations decreasing from 90 to 44. 30% of the tonnage was for older and blended varieties which attract a demand from the mills and for thatch and there was even two authorisations for a mixture of wheat varieties. There is a good agronomic reason for this and needs to be considered as an option. The tonnage of rye decreased by 65%, but with a similar number of derogations perhaps reflecting that farmers are keeping areas similar but increasing home saving. There has also been an increase in spelt and two authorisations for naked oats showing that organic farmers are expanding the range of crops they have an interest in.

2020 has proven to be as challenging for cereal planting as 2019 because we also suffered from a spring drought which affected spring crops as well as a wet autumn. This puts pressure on the organic seed industry to attempt to supply what is in demand. A further complication could arise in relation to exiting the EU, which could impact on ability to obtain seed supplies from Europe.

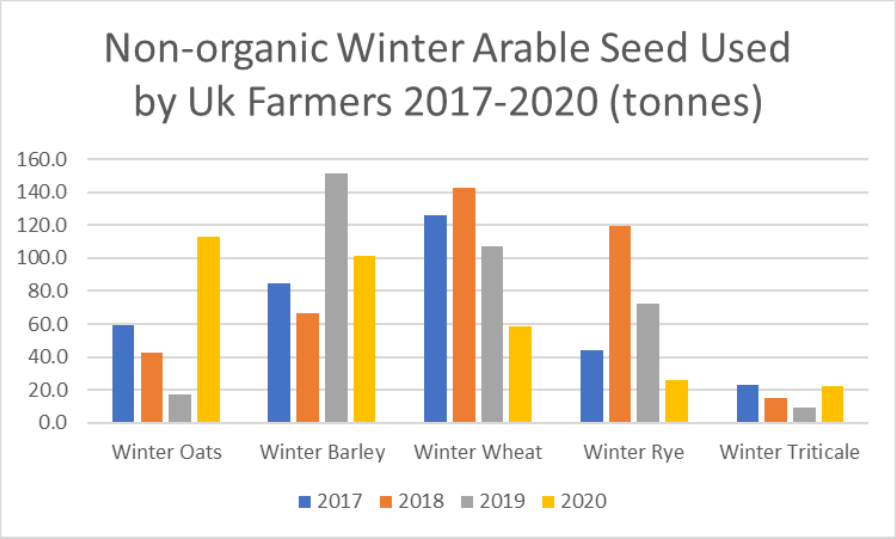
**Table 2: Non-organic arable seed used by organic farmers: 2018 to 2020**

| Crop | 2018 | | 2019 | | 2020 | | % change 2019-20 | |
|---|---|---|---|---|---|---|---|---|
| | auths | tonnes | auths | tonnes | auths | tonnes | auths | tonnes |
| **Spring Barley** | 166 | 250.3 | 81 | 141.1 | **57** | **248.3** | -30 | 76.0 |
| **Field Pea** | 275 | 256.2 | 260 | 397.2 | **167** | **168.9** | -36 | -57.5 |
| **Spring Triticale** | 47 | 19.8 | 56 | 75.8 | **56** | **149.0** | 0 | 96.5 |
| **Winter Oats** | 18 | 42.3 | 17 | 17.6 | **22** | **113.0** | 29 | 541.8 |
| **Spring Oats** | 99 | 230.7 | 42 | 65.7 | **30** | **109.0** | -29 | 65.9 |
| **Winter Barley** | 26 | 66.5 | 34 | 151.0 | **33** | **101.5** | -3 | -32.8 |
| **Spring Wheat** | 23 | 98.4 | 20 | 59.1 | **19** | **84.3** | -5 | 42.7 |
| **Field Bean** | 20 | 105.3 | 63 | 185.8 | **21** | **72.9** | -67 | -60.8 |
| **Winter Wheat** | 69 | 142.9 | 90 | 107.0 | **44** | **58.5** | -51 | -45.4 |
| **Winter Rye** | 65 | 119.3 | 34 | 72.5 | **38** | **25.7** | 12 | -64.6 |
| **Winter Triticale** | 23 | 14.7 | 9 | 9.6 | **9** | **22.3** | 0 | 132.8 |
| **Spelt** | - | - | 3 | 3.2 | **5** | **20.8** | 67 | 555.1 |
| **Wheat mixes** | - | - | - | - | **2** | **0.6** | - | - |

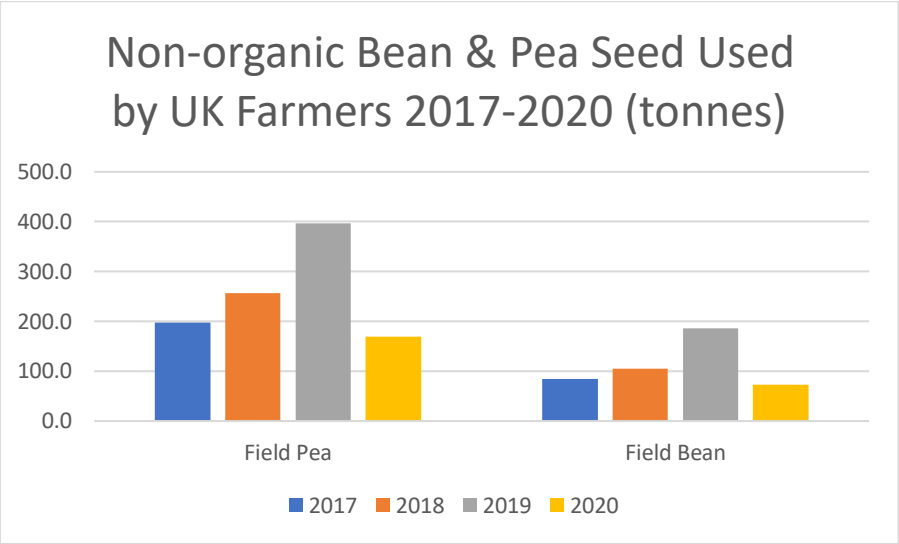
**Graph 6: Comparison of non-organic spring arable seed authorisations**




**Graph 7: Comparison of non-organic spring arable seed authorisations**



**Graph 8: Comparison of non-organic spring arable seed authorisations**



## Horticulture

The total number of authorisations for non-organic seed for all species in the horticultural sector increased from 3,114 in 2019 to 3,632 in 2020 (+17%). Due to the time lag in the release of land area statistics, it is not possible to directly relate this to overall organic horticultural production. The area of organic horticultural land grew marginally in 2019 (9,300 hectares in 2018 to 9,400 hectares in 2019)[2]. 2020 saw strong growth in the organic market with the value of fresh produce increasing +15.5% from 2019 to 2020[3].

It remains almost impossible to show a simple comparison and analysis of authorisations for the horticultural sector due to the huge range of different crops and varieties, which are sold and recorded using different units of measurement (by weight, number of seeds/plants). Table 3 and Graph 9 below show comparisons for some of the major vegetable crops.

Here are a few of the significant changes from 2019

*Cabbage* – grouping the different cabbages together there has been an increase of +32% from 175 to 231 authorisations, though within this category some cabbage types have seen an increase and others a decrease.

*Cauliflower* – the number of authorisations increased by +92% ; in line with this the number of seeds authorised increased by +91%.

*Courgette* – despite the number of authorisations increasing by +52% the volume of seeds decreased by -24%.

*Kale* – an increase of just over a third was observed in authorisations and +230% in the number of seeds. However, the volume of seed decreased by nearly 30%.

*Lettuce* – grouping the different lettuces together there was an increase of 44% in lettuce authorisations and an increase in volume of nearly 200%.

*Quinoa* – an increase of 48% was seen in the weight although the number of authorisations decreased by nearly a quarter.

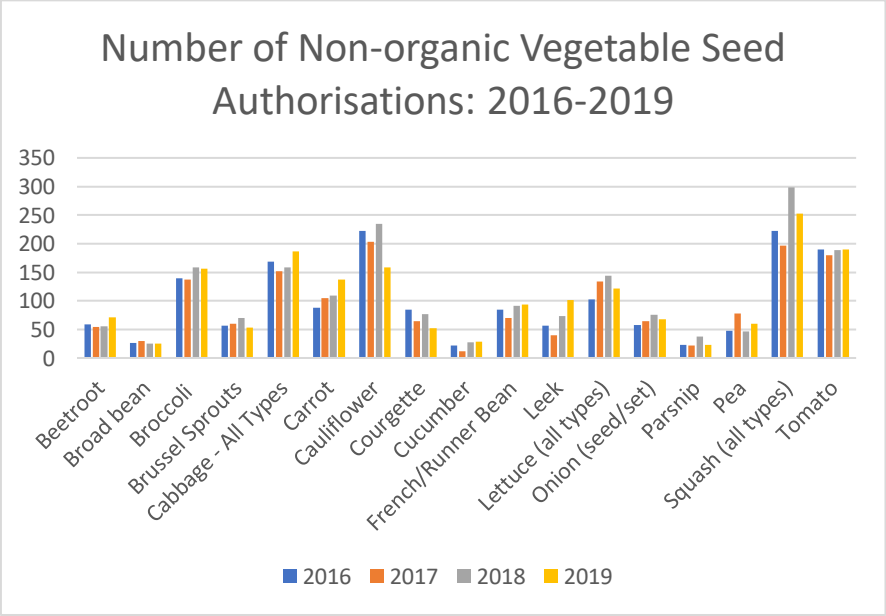
*Sweetcorn* – both number of authorisations and number of seeds authorised increased by a third whilst the seed authorised by weight increased by 190%.

[2] Defra Land statistics https://www.gov.uk/government/statistics/organic-farming-statistics-2019
[3] Soil Association Organic Market Report: https://www.soilassociation.org/certification/market-research-and-data/download-the-organic-market-report/

**Table 3: Summary data for the top 20 horticultural crop species in 2019 (by number of authorisations) compared with the same crops 2018-2019**

| Crop | 2018 | | | 2019 | | | 2020 | | |
|---|---|---|---|---|---|---|---|---|---|
| | auths | kg | seeds | auths | kg | seeds | auths | kg | seeds |
| Asia Greens | 50 | 220.68 | 875,495 | 63 | 57.66 | 26,937,760 | **47** | **4.22** | **37,373,317** |
| Beetroot | 55 | 12.22 | 48,344,650 | 71 | 14.23 | 62,747,370 | **72** | **37.15** | **35,860,583** |
| Broccoli | 158 | 296.55 | 9,504,135 | 156 | 188.04 | 16,546,197 | **202** | **0.04** | **30,918,051** |
| Brussels Sprouts | 70 | 0.10 | 277,340 | 53 | 25.00 | 462,124 | **61** | **0.06** | **273,078** |
| Cabbage, all types | 155 | 1.34 | 2,009,104 | 175 | 1.38 | 5,620,822 | **231** | **41.72** | **10,911,201** |
| Carrot | 109 | 3.17 | 594,104,350 | 137 | 15.33 | 813,994,656 | **112** | **0.02** | **1,086,750,802** |
| Cauliflower | 235 | 0.01 | 2,757,570 | 158 | 5.00 | 4,582,417 | **304** | **0.05** | **8,763,071** |
| Chard | 50 | 42.80 | 975,258 | 46 | 14.43 | 9,417,065 | **60** | **13.81** | **17,640,940** |
| Chilli Pepper | 93 | - | 27,373 | 67 | - | 5,218 | **61** | 0.05 | **7,279** |
| Courgette | 77 | 50.04 | 1,028,648 | 52 | - | 810,212 | **79** | **35.07** | **613,568** |
| Kale | 138 | 54.92 | 1,549,300 | 106 | 177.88 | 1,529,284 | **144** | **126.71** | **5,051,848** |
| Leek | 73 | 0.02 | 12,922,430 | 101 | 0.65 | 23,121,175 | **121** | **0.25** | **19,495,256** |
| Lettuce, all types | 144 | 0.20 | 87,922,357 | 122 | 7.71 | 24,447,708 | **176** | **0.23** | **72,333,222** |
| Pak Choi | 54 | 120.21 | 305,044 | 48 | 10.24 | 3,529,663 | **55** | **0.74** | **373,904** |
| Pea | 46 | 7,963.68 | 1,207,230 | 39 | 800.50 | 1,390,940 | **30** | **4,908.90** | **1,408,210** |
| Quinoa | 72 | 753.46 | - | 85 | 1,114.23 | 200 | **63** | **1,643.96** | **-** |
| Spinach | 66 | 0.52 | 1,249,400,620 | 70 | 0.95 | 825,867,110 | **67** | **0.02** | **947,630,500** |
| Squash | 298 | 10.11 | 1,026,727 | 232 | 116.65 | 634,091 | **249** | **0.79** | **828,685** |
| Sweetcorn | 113 | 237.34 | 2,393,019 | 68 | 2.10 | 2,835,383 | **91** | **6.10** | **3,747,742** |
| Tomato | 189 | 0.40 | 767,989 | 190 | 0.89 | 365,159 | **227** | **0.04** | **376,786** |

**Graph 9: Non-organic vegetable seed authorisations comparison (selected crops)**



## Fruit

The total number of authorisations in the fruit sector decreased from 201 in 2019 to 192 in 2020 (a decrease of 4.5%). There is again significant variation from crop to crop; however, the small scale of the sector is such that one or two significant plantings of a particular species can have a large impact on the overall picture. For instance, there was only one additional authorisation for gooseberry, but this resulted in an additional 23,000 plants. The biggest increases in numbers of plants were seen in blueberries (+291,120%), gooseberries (+2,104%), blackcurrants (+62%), and grapes (+1,835%).

The largest decrease was seen in strawberries (-39%). Blackberries and mulberries also saw a decrease with no plants authorised in 2020.

Chuckleberries saw another single planting of 8,000 an increase on the single planting figure of 5000 in 2018 and 2019.

We continue to have insufficient evidence to match the authorisations to overall hectares of each fruit, so we are as yet unable to tell whether an increase in area represents an overall improvement in any one crop.

The interpretation of rules on how authorisations for propagating material and plants are given through the certifying bodies has now been modified. We intend to continue to report on where non organic trees and fruit bushes have been used, though this is not an authorisation as propagating material.

**Graph 10: Comparison of the non-organic fruit authorisations issued to UK organic farmers and growers between 2013 and 2019 (all fruit crops)**

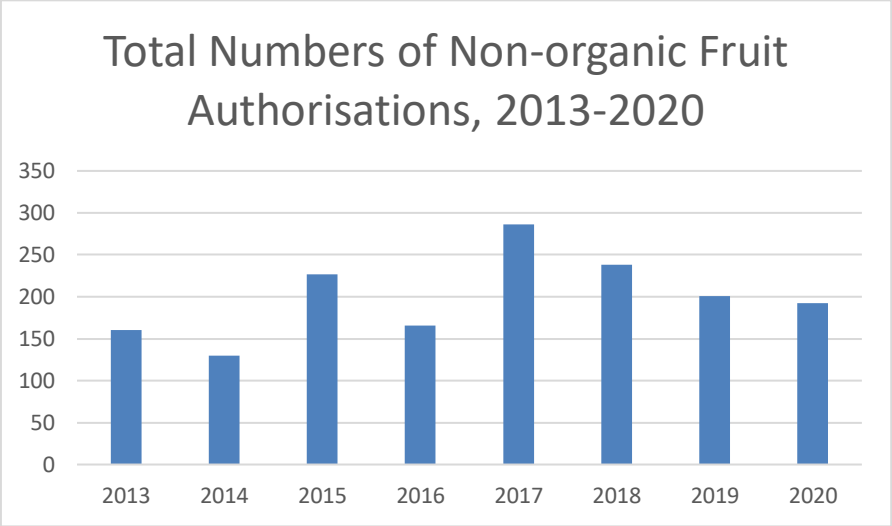


**Table 4: Summary of non-organic fruit authorisations – selected crops**

| Crop | 2018 | | 2019 | | 2020 | | Change 2019-20 | |
|---|---|---|---|---|---|---|---|---|
| | Auths | Quantity (plants) | Auths | Quantity (plants) | Auths | Quantity (plants) | Auths | Quantity |
| **Apple** | 62 | 318 | 95 | 6,039 | 75 | 8,409 | -21 | 39 |
| **Blackberry** | - | - | 5 | 71 | - | - | - | - |
| **Blackcurrant** | 7 | 30,001 | 7 | 30,012 | 10 | 48,655 | 43 | 62 |
| **Blueberry** | 5 | 304 | 7 | 20 | 8 | 58,244 | 14 | 291,120 |
| **Cherry** | 13 | 2,400 | 3 | 76 | 7 | 553 | 133 | 628 |
| **Chuckleberry** | 1 | 5,000 | 1 | 5,000 | 1 | 8,000 | 0 | 60 |
| **Crabapple** | - | - | - | - | 6 | 308 | - | - |
| **Gooseberry** | 3 | 15,000 | 6 | 1,094 | 7 | 24,108 | 17 | 2,104 |
| **Grape*** | 9 | 534 | 2 | 850 | 11 | 16,450 | 450 | 1,835 |
| **Melon** | 8 | 4,324 | - | - | - | - | - | - |
| **Mulberry** | 1 | 1 | 8 | 38 | - | - | - | - |
| **Peach** | - | - | - | - | 2 | 10 | - | - |
| **Pear** | 9 | 4,051 | 17 | 48 | 14 | 754 | -18 | 1,471 |
| **Plum** | 16 | 1,933 | 3 | 350 | 22 | 403 | 633 | 15 |
| **Raspberry** | 14 | 690 | 8 | 666 | 15 | 2,456 | 88 | 269 |
| **Red Currant** | 3 | 10,020 | 5 | 10,058 | 3 | 16,003 | -40 | 59 |
| **Strawberry** | 54 | 29,360 | 17 | 9,210 | 8 | 5,600 | -53 | -39 |
| **Tayberry** | - | - | - | - | 1 | 10 | - | - |
| **White Currant** | 1 | 5,000 | 2 | 5,005 | 2 | 8,001 | 0 | 60 |

*

*Table grape: 1 authorisation, 2 plants.*
*Wine Grape: 10 authorisations, 16,448 plants*

## Grass Seed

There was a small change in the number of authorisations in 2020 but an increase in tonnage of 10% over 2019. Most significantly was a large increase in Hybrid and Perennial ryegrass tonnages although this can be partly explained by a change in the derogation for non-organic seed in 2020. There was a reduction to 50% permitted, due to weather and harvesting issues in 2019. Hybrid ryegrass had a fall in authorisations from 150 to 129 but an increase in tonnage of 152% to 19.89 tonnes. Italian and Westerwold ryegrasses saw a drop of 30 and 70% in tonnages, possibly due to poor reseeding weather in the autumn or a move away from short term grass mixes.

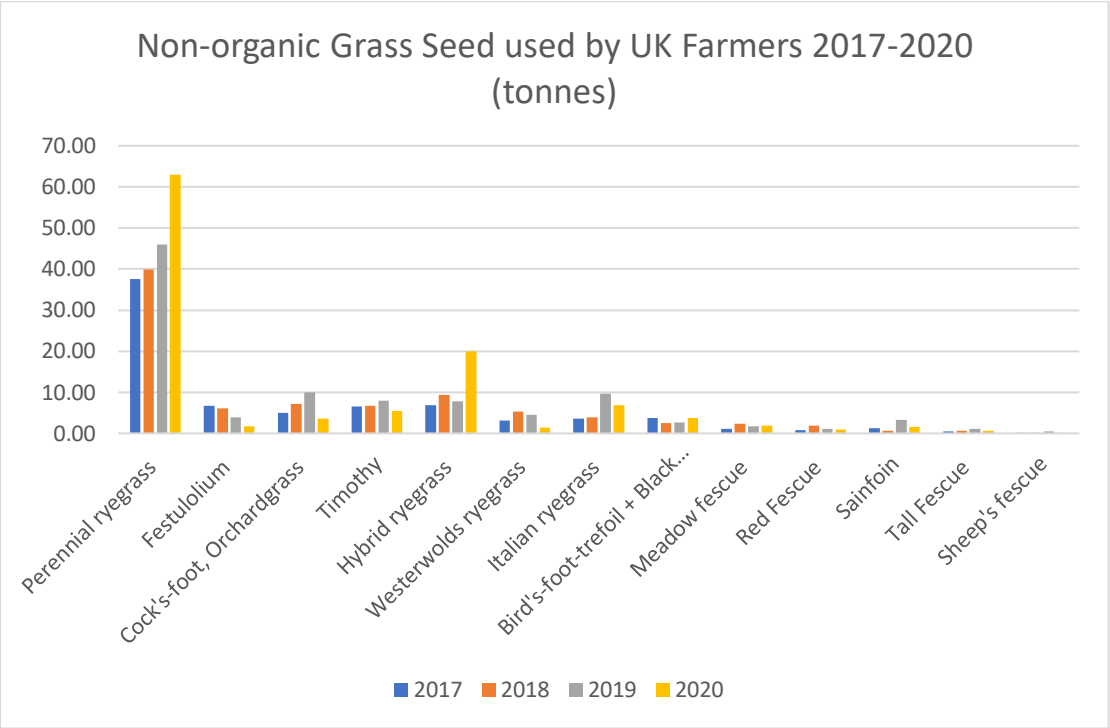
All other major grass species saw a reduction in authorisations and tonnage, except for meadow fescue. The demand for meadow fescue, timothy and red fescue would be expected to mirror grazing mix sales and so lower sales may be down to the weather and good forage stocks. It is possible that adequate levels of these seeds were available as organic seed.

Sainfoin, which showed a large increase last year had a 50% fall in both authorisations and tonnages. Last year's increase followed publicity from farm-based events together with good supporting evidence, but there may be indications that farmers are waiting to see how successful it is. Birds foot trefoil and black medic both showed increases possibly due to their use in cereal cover crops and biodiversity supporting arable environmental schemes.

**Table 5: Comparison of non-organic grass seed authorisations (major crops)**

| Name of Crop Species | 2018 | | 2019 | | 2020 | | % Change 2019-20 | |
|---|---|---|---|---|---|---|---|---|
| | **Auths** | **Amount (tonnes)** | Auths | Amount (tonnes) | **Auths** | **Amount (tonnes)** | **Auths** | **Amount (tonnes)** |
| **Perennial ryegrass** | 1,158 | 39.94 | 1,196 | 45.99 | **1,353** | **62.90** | 13 | 37 |
| **Hybrid ryegrass** | 262 | 9.32 | 150 | 7.87 | **129** | **19.89** | -14 | 153 |
| **Italian ryegrass** | 85 | 3.93 | 106 | 9.68 | **95** | **6.89** | -10 | -29 |
| **Timothy (***Phleum pratense + P bertolonii***)** | 356 | 6.66 | 393 | 8.00 | **254** | **5.43** | -35 | -32 |
| **Bird's-foot-trefoil + Black Medick** | 89 | 2.44 | 165 | 2.68 | **199** | **3.74** | 19 | 39 |
| **Cock's-foot, Orchardgrass** | 204 | 7.21 | 202 | 9.98 | **117** | **3.63** | -42 | -64 |
| **Meadow fescue** | 81 | 2.29 | 68 | 1.72 | **79** | **1.80** | 16 | 5 |
| **Festulolium** | 115 | 6.07 | 71 | 3.86 | **36** | **1.72** | -49 | -55 |
| **Sainfoin** | 21 | 0.68 | 73 | 3.26 | **31** | **1.61** | -58 | -50 |
| **Westerwolds ryegrass** | 58 | 5.23 | 42 | 4.50 | **16** | **1.38** | -62 | -69 |
| **Red Fescue** | 62 | 1.91 | 55 | 1.05 | **45** | **0.99** | -18 | -5 |
| **Tall Fescue** | 43 | 0.64 | 39 | 1.08 | **31** | **0.57** | -21 | -47 |
| **Sheep's fescue** | 26 | 0.09 | 27 | 0.54 | **6** | **0.02** | -78 | -96 |

**Graph 11: Tonnage of non-organic grass seed authorisations (selected crops)**




## Forage / Fodder Crops

There has been a relatively consistent number of authorisations, and a small increase in tonnages, over the last 3 years. White and red clover remain the principle source of authorisations. In 2020 authorisations and tonnages dropped by over 30% in total and even white and red clover quantities dropped by 45%. This may be due to the poor weather combining a drought and then a long, wet period reducing opportunities and requirement to reseed, or plant forage crops and cover crops in arable rotations.

Stubble Turnip authorisations went up by 50% and tonnage by 137% perhaps reflecting the need to get forage crops into the rotation when cultivations are not practical although there is a sign that farmers alternate between stubble turnips and forage rape. The only other crop to show an increase in tonnage was vetch which has a role in arable silages as a source of protein, increasing by 5 authorisations but by 3.1 tonnes.

Linseed has also had a large reduction in tonnage with 70% less seed used, the wet summer in 2019 may well have reduced enthusiasm due to harvesting difficulties although it is a good plant to have in cover crop and wild-bird seed mixes.

There has also been a big increase in lupins (up by 875%) with the same number of authorisations. Lupins can be grown as a combinable crop or used as an addition into arable silages to increase proteins. Their increase could be due to an increasing interest, and requirement for, UK grown protein to replace soya. Plant breeders are working hard to produce varieties which perform acceptably under UK conditions.

**Table 6: Summary comparison of authorisations issued for non-organic forage/fodder seed (major crops) : 2018–2020, by volume**

| Crop | 2018 | | 2019 | | 2020 | | % Change 2019-20 | |
|---|---|---|---|---|---|---|---|---|
| | Auths | Amount (tonnes) | Auths | Amount (tonnes) | Auths | Amount (tonnes) | Auths | Amount (tonnes) |
| **White clover** | 2,848 | 40.01 | 2,687 | 52.76 | **1,899** | **23.46** | -36 | -56 |
| **Red clover** | 891 | 28.69 | 872 | 35.15 | **551** | **20.56** | -37 | -42 |
| **Stubble turnip** | 186 | 5.88 | 155 | 4.92 | **234** | **11.70** | 51 | 138 |
| **Forage rape** | 357 | 21.50 | 336 | 14.64 | **272** | **11.09** | -19 | -24 |
| **Vetch** | 84 | 10.84 | 53 | 7.36 | **58** | **10.48** | 9 | 42 |
| **Alfalfa** | 39 | 2.58 | 54 | 4.33 | **47** | **2.93** | -13 | -32 |
| **Fodder kale** | 198 | 3.55 | 180 | 4.71 | **139** | **2.20** | -23 | -53 |
| **White mustard** | 31 | 2.31 | 65 | 2.68 | **42** | **1.68** | -35 | -37 |
| **Fodder radish** | 83 | 1.64 | 115 | 2.14 | **70** | **1.67** | -39 | -22 |
| **Forage chicory** | 246 | 3.96 | 236 | 1.90 | **187** | **1.63** | -21 | -14 |
| **Plantain** | 216 | 2.39 | 236 | 1.78 | **191** | **1.40** | -19 | -21 |
| **Flax/linseed** | 49 | 3.59 | 64 | 5.22 | **39** | **1.40** | -39 | -73 |
| **Crimson clover** | 55 | 1.38 | 72 | 1.73 | **57** | **0.98** | -21 | -44 |
| **Alsike clover** | 155 | 1.99 | 139 | 2.71 | **107** | **0.73** | -23 | -73 |
| **Balansa clover** | 5 | 0.29 | 5 | 0.29 | **6** | **0.28** | 20 | -3 |
| **Persian clover** | 30 | 0.24 | 38 | 0.40 | **21** | **0.27** | -45 | -32 |
| **Fodder beet** | 45 | 1.37 | 45 | 0.05 | **48** | **0.17** | 7 | 240 |
| | | | | | | | | |
| **Lupin *** | 20 | 5.52 | 4 | 1.35 | **4** | **27.56** | 0 | 1,940 |

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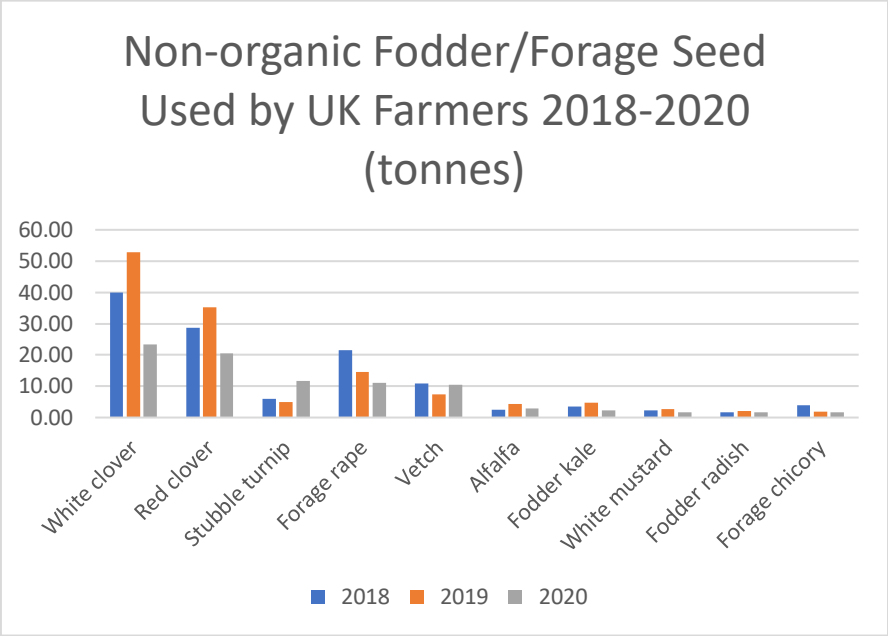
*Lupins are both a forage and a combinable crop and could equally well be placed with Arable crops in Table 2.*

**Graph 12: Volumes of non-organic forage/fodder seed 2018-2020**



## Organic seed working groups

The seed working group meetings have been held for a number of years. Chaired by the Soil Association, they bring together seed suppliers, control bodies, organic farmers, and representatives from Defra to discuss past authorisations - as well as assessing the current volume and diversity of organic seed available to farmers and growers.

This activity continued online during 2020, with a meeting of the Arable group in May and the Grass group in November. The agenda of both meetings were necessarily similar to previous years, topics including details of the previous year's non-organic seed authorisations, the state of the organic market (including land area statistics), trade summary / future availability, the possible consequences of the atypical weather experienced lately and the implications of Brexit.

Meetings of the horticulture and potato seed working groups were not held during 2020. Regular formal meetings for these groups are unnecessary because the Soil Association continues to work with the sector and organic seed producers to promote their products to organic growers, and to highlight the risk to consumer trust of continued high levels of non-organic seed use.

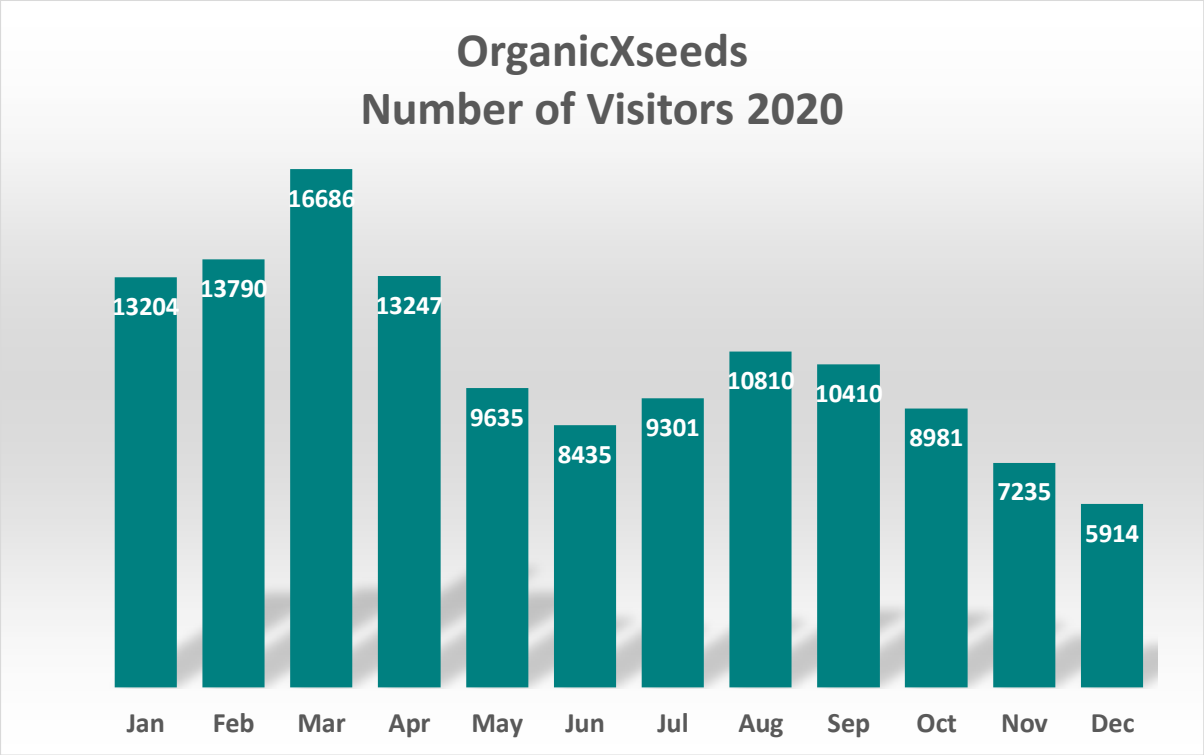
## The UK database: www.organicxseeds.co.uk

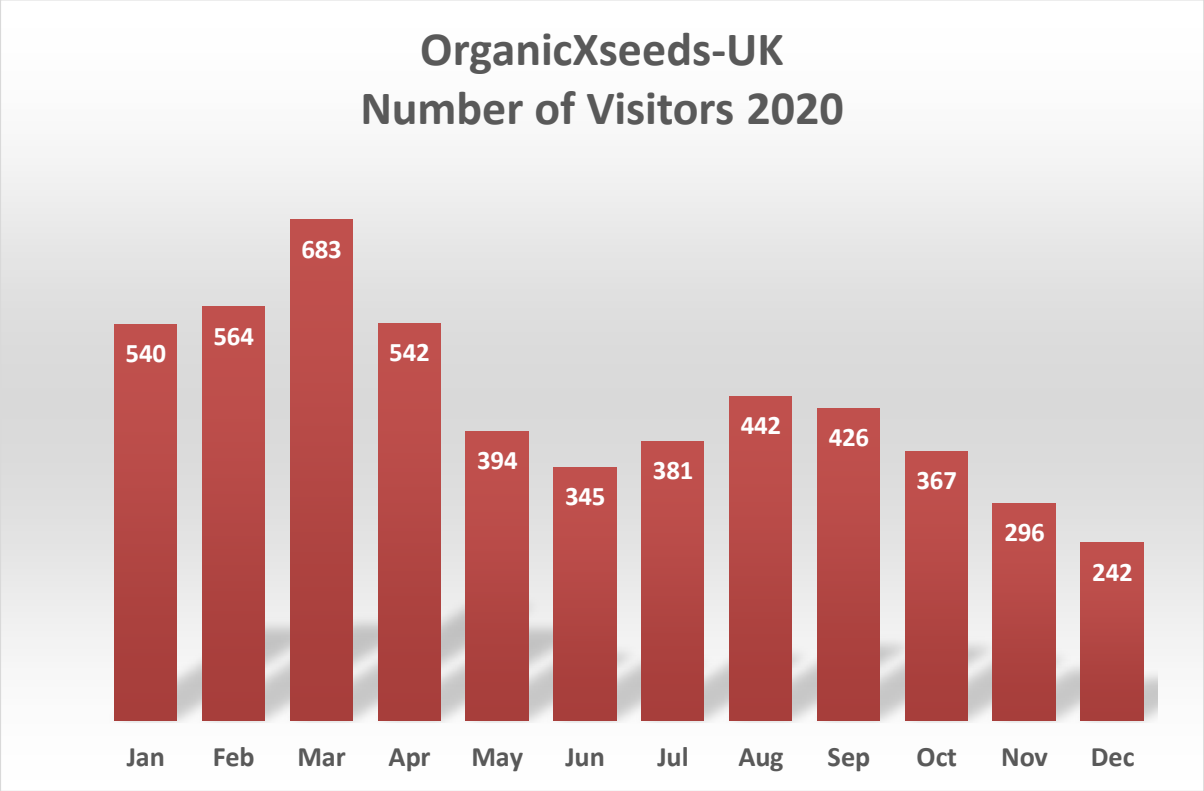
This database is a requirement of EU Regulation (EC) No. 834/2007 and 889/2008 which regulates the use of seeds and seed potatoes in organic farming.

There are currently 32 seed companies registered in the database who are able to supply organic seed and/or organic seed potatoes to organic farmers and growers in the UK. Seed suppliers can register species of organic seed and/or organic seed potatoes by variety via a login and password. They are regulated by a signed contract with the Soil Association requiring them 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. UK control bodies are legally obliged to check the database for organic seed availability before issuing authorisations to use non-organic seed.

Statistics provided by FiBL relating to the Organic X Seeds website (which operates across several EU member states) can be viewed below:


OrganicXseeds
Number of Visitors 2020
13204
13790
16686
13247
9635
8435
9301
10810
10410
8981
7235
5914
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


OrganicXseeds-UK
Number of Visitors 2020
540
564
683
542
394
345
381
442
426
367
296
242
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

## 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) (**NB:** In the UK it has been agreed by Defra to modify Article 5(1) and use the following justifications).

(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;

(d1) It is justified for use in research;

(d2) To test in small-scale field trials;

(d3) For variety conservation purposes, agreed by the competent authority of the member state;

(e) The seed is part of a grass or forage mix containing at least 70% organic seeds.

**Column 5**
The chemical treatment for phytosanitary purposes
**There are currently no chemical treatments allowed for phytosanitary purposes in the UK.**
*[This column is informally used for seed-for-seed production]*

**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 - "UK Non-Organic Seed Authorisation Report 2018 Data" - summarises the authorisations granted in 2018 by all of the UK 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 records the information as provided by the seed company.

## Acknowledgements

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