Explanatory Memorandum to The Seed Marketing (CMS Wheat Hybrids) (Temporary Experiment) (Wales) Regulations 2024

This Explanatory Memorandum has been prepared by the department for Climate Change and Rural Affairs and is laid before Senedd Cymru in conjunction with the above subordinate legislation and in accordance with Standing Order 27.1

Cabinet Secretary's Declaration

In my view, this Explanatory Memorandum gives a fair and reasonable view of the expected impact of The Seed Marketing (CMS Wheat Hybrids) (Temporary Experiment) (Wales) Regulations 2024. I am satisfied the benefits justify the likley costs.

Huw Irranca-Davies MS
Deputy First Minister and Cabinet Secretary for Climate Change and Rural Affairs

16 September 2024

PART 1

1. Description

The Seed Marketing (CMS Wheat Hybrids) (Temporary Experiment) (Wales) Regulations 2024 ("these Regulations") set up a temporary experiment, with a duration of seven years, to introduce certification standards for seed of hybrid wheat produced via the means of Cytoplasmic Male Sterility (CMS) so that it can be marketed. CMS is a breeding technique that creates hybrids through use of female and male parental components, where the female parent cannot produce pollen.

In order to be marketed, seed of wheat must be certified. It must undergo field inspections and laboratory tests so that it can be shown to meet high quality standards. The current certification requirements for seed of wheat hybrids were designed for hybrids produced via treatment with chemicals to stop the production of pollen and are not suitable for these new hybrids produced via CMS. They also do not include relevant standards that the parental components of the hybrids should meet during field inspections.

As hybrids of wheat produced by CMS are a relatively recent development, the certification standards proposed under the temporary experiment are provisional and will allow real-world knowledge to be collected from growing the crops to ascertain if they are appropriate, ahead of any permanent changes to legislation.

2. Matters of special interest to the Legislation, Justice and Constitution Committee

None.

3. Legislative background

These Regulations are made in exercise of the powers conferred by sections 16(1), (1A), (3) and (5) and 36 of the Plant Varieties and Seeds Act 1964(**1**) ("the 1964 Act").

Section 16(1) of the 1964 Act requires consultation with representatives of such interest prior to making such regulations.

([1]) Section 16 was amended by section 4(1) of, and paragraph 5(1), (2) and (3) of Schedule 4 to, the European Communities Act 1972 (c. 68), S.I. 1977/1112 and section 2 of the Agriculture Act 1986 (c. 49). See section 38(1) for a definition of "the Minister". Under the Transfer of Functions (Wales) (No.1) Order 1978 (S.I. 1978/272) ("the 1978 Order"), article 2(1) and Schedule 1, the functions of the Minister of Agriculture, Fisheries and Food under the Plant Varieties and Seeds Act 1964 were, so far as they are exercisable in relation to Wales, transferred to the Secretary of State and under the National Assembly for Wales (Transfer of Functions) Order 1999 (S.I. 1999/672), article 2 and Schedule 1, the functions transferred to the Secretary of State by the 1978 Order were transferred to the National Assembly for Wales. By virtue of paragraph 30 of Schedule 11 to the Government of Wales Act 2006 those functions are exercisable by the Welsh Ministers.

Regulation 21A of the Seed Marketing (Wales) Regulations 2012 (the "2012 Regulations") provides that the Welsh Ministers may by licence exempt any person or class of person from compliance with any provision of the 2012 Regulations for the purposes of a temporary experiment seeking improved alternatives to the provisions of that Regulation if organised in accordance with regulations made under section 16(5) of the 1964 Act. The experiment is to run for a period of 7 years beginning with the date that these Regulations come into force.

These Regulations provide a licencing procedure for those wishing to take part in the experiment, as well as recording and reporting obligations. It also applies alternative requirements for the certification of CMS Hybrid Wheat seed by modifying specific provisions in the 2012 Regulations.

These Regulations are subject to the negative procedure.

4. Purpose and intended effect of the legislation

Seed for growing key agricultural species, including wheat, can only be marketed if it has been certified, following crop inspection and laboratory analysis. The certification process ensures that growers access high quality seed that is pure, will germinate and grow and is substantially free of pests, diseases and weeds. The certification requirements that seed must meet varies depending on the species, and if it is a hybrid variety or not. Hybrids can provide an advantage for growers as they often have higher yields and improved disease resistance.

The Regulations set up a temporary experiment to allow seed of wheat hybrids produced by the means of CMS to be marketed at a lower varietal purity standard (that is, the percentage of the seed that should conform to the variety description) than currently required for hybrid wheat seed in the 2012 Regulations. This is required because the current standards in the 2012 Regulations for seed of hybrid wheat are based on those produced by a chemical hybridisation method. Production of hybrids via the CMS method uses a blend production system – where the sterile line of plants are pollinated by another, genetically different, wheat line. This blend production system can lead to a higher rate of "off-types" (plants that are not true to the variety description and therefore do not meet varietal purity standards) in the produced hybrid seed compared to hybrids produced using a chemical hybridisation agent. Consequently, seeds of CMS hybrid wheat may not meet the current varietal purity standard of 90% and this temporary experiment will allow them to be marketed at a rate of 85%.

The temporary experiment also sets standards the crop must meet associated with production of hybrids by CMS, for example the level of male sterility. They are based on international standards being trialled under a temporary experiment by the Organisation for Economic Co-operation and Development (OECD) schemes for the Varietal Certification of Seed, of which the UK is a member.

The EU implemented the same standards as the OECD in 2022 under a temporary experiment. Scottish Ministers introduced an equivalent change to their legislation in 2023.

The standards are provisional as once grown on a large scale, in different climatic conditions, CMS wheat hybrids may perform differently than expected – for example, they may be able to meet a higher varietal purity standard. Thus, the information collected from the temporary experiment will help us to ascertain if the provisional standards are appropriate and can be used to inform any future permanent change to the legislation.

This temporary experiment will also give growers access to wheat hybrids again as the chemical hybridisation agents are not authorised the UK, and CMS represents the only other way that wheat hybrids can be produced.

For growers to test and gain advantage from these new hybrid cereal varieties when growing them in their fields, the current standard of 90% needs to be reduced to 85% for hybrid wheat seed varieties created using the CMS technique.

5. Consultation

An informal bilingual consultation was carried out jointly by Welsh Government and Defra via email. The consultation was issued to interested stakeholders including plant breeders with an interest in hybrids and stakeholder groups representing growers, plant breeders and those from the seed and agricultural industry in England and Wales. The consultation asked stakeholders if they agreed with the introduction of a temporary experiment to allow CMS wheat hybrids to be marketed, and the proposed certification standards. Five responses were received, all supporting the proposals.

Part 2 – Regulatory Impact Assessment

6. Options

The Regulatory Impact Assessment (RIA) sets out the options available to the Minister that could achieve the policy objective, including:

- keep the status quo i.e. business as usual (previously referred to as 'do nothing') – This would mean CMS hybrid wheat seed could be grown in Wales but would be unlikely to meet the current varietal purity standard of 90% and therefore could not be marketed in Wales. This would be seen to disadvantage Welsh growers compared to those in the rest of the UK. A similar temporary experiment already exists in Scotland under legislation introduced in 2023. Northern Ireland growers can operate under an EU equivalent temporary experiment. UK Government are planning to introduce similar legislation for England in September 2024.
- make the legislation - this would allow the marketing of CMS hybrid wheat seed grown in Wales at the lower 85% varietal purity under the temporary experiment. This would be seen as a safeguard against disadvantaging Welsh growers compared to those in the rest of the UK.
- any feasible alternatives - no feasible alternatives have been identified. The only way to change the varietal purity standards is via legislation. The current standards in the Seed Marketing (Wales) Regulations 2012 for hybrid wheat seed are based on those produced by a chemical hybridisation method. Production of hybrid wheat seed via the CMS method can lead to a higher rate of "off-types" (plants that are not true to the variety description and therefore do not meet varietal purity standards) in the produced hybrid seed compared to hybrids produced using a chemical hybridisation agent. Consequently, seeds of CMS hybrid wheat may not meet the current varietal purity standard of 90% hence the need for a trial 85% varietal purity standard.

7. Costs and benefits

This change to legislation is of a technical nature which is limited in its affect to a small set of cereal growers in Wales and is anticipated to have a low level of impact per business. In 2023 the Welsh Agricultural Survey recorded 24,563 farms in Wales with just under 3% of those farms growing wheat. In that year, 24,801 ha of wheat was recorded as grown in Wales compared to 1,720,000 ha in the UK. This amounts to 1.4% of UK total hectarage for wheat in 2023.

The temporary experiment which the legislation sets up will last for a maximum of seven years. It will allow growers access to seed of new varieties of hybrid wheat which could lead to potential benefits in terms of higher yields and greater disease resistance compared to conventional varieties of wheat seed. Application to enter the temporary experiment to trial CMS hybrid wheat seed will be a matter of personal choice for the grower. Cost of CMS hybrid wheat seed compared to conventional wheat varieties are expected to be higher. As a guide, it is understood, the cost of hybrid barley seed is approximately 25-30% above that of conventional varieties (varies annually).

In 2023, winter barley seed was around £400-£425 per tonne. Prices are likely to be higher in 2024 due to the poor autumn weather at an estimate of circa £475 per tonne. Hybrid barley seed would therefore be anticipated to be circa £600-£650 tonne in 2024. The higher cost of the hybrid seed is offset by a lower seed rate at sowing and the extra yield that comes from a hybrid. We do not have any evidence to suggest agronomic growing costs would be any greater for CMS hybrid wheat varieties as compared with conventional varieties.

Certification costs are the same for conventional or hybrid wheat seed. Latest costs (June 2024) published at: https://assets.publishing.service.gov.uk/media/6661dca9b2fa552207d86a4e8/SC_5_24_Seeds_Cert_Fees_Refresh.pdf

We have therefore concluded additional costs or burdens to businesses who wish to take part in the temporary experiment are considered negligible. There are no costs implications for crop inspections or Welsh Government as a result of these changes. Therefore, there is no greater impact when compared with introduction of any other new variety to the market.

There is no, or no significant, impact on other business, charities or voluntary bodies because the temporary experiment is targeted to a small number of cereal growers and application to partake in the temporary experiment is voluntary.

Although there will be no, or no significant, cost implications to the industry associated with the legislation, CMS hybrids of wheat have the potential to provide greater profit for growers in the future with the as CMS hybrid wheats have the capacity to increase productivity through increasing yields and increased disease resistance.