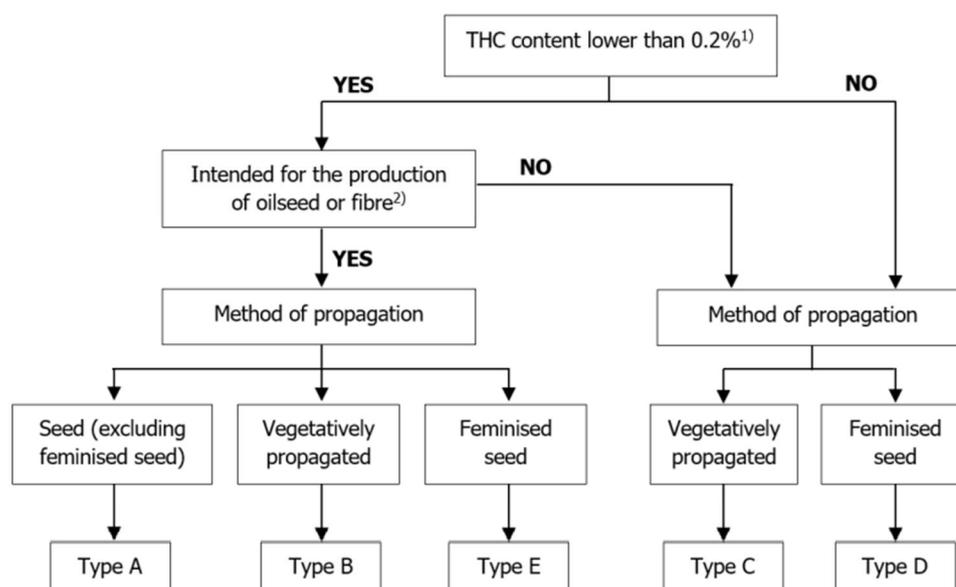




FAQ Hemp, version 16

Subject	Question	Answer
A1. Classification of hemp (<i>Cannabis sativa</i> L.) in types.	What are the types of the hemp crop and the fees?	<p>Hemp is a complex crop with 5 types. We use the flow chart below for classification into types (as published in the Technical Protocol of Hemp from the CPVO (CPVO-TP/276/2) as a tool to help you find the right type.</p> <p>Based on information you give in the TQ, Naktuinbouw will determine which type your hemp belongs to.</p>

Flow chart for classification into types:



¹⁾ Threshold for hemp/Cannabis cultivation according to EU regulation 1307/2013. The cultivation of varieties with a THC content higher than this threshold generally requires a permit. National (opium) laws may also apply.

²⁾ Varieties as referred to in EU Council Directive 2002/57/EC (13 June 2002) on the marketing of seed of oil and fibre plants.

Hemp (*Cannabis sativa* L.) types

A) Hemp for fibre or oilseed, seed propagated (excl. feminized). This is the classic agricultural type with a THC-content lower than 0.2 %. The purpose is fibre production and/or oil crushed from seed. Application for listing and Plant Breeders' Rights is possible. DUS and VCU tests (Value for Cultivation and Use) take place in open fields. The minimum duration of tests should normally be two independent growing cycles. **If the application is for listing, VCU testing is obligatory. At this moment in NL VCU testing is only possible for fibre types and not for oilseed types. NL-test fee for DUS is H1 (€ 1,747,- price level 2022). See applicable fees.**

B) Hemp for fibre or oilseed, vegetatively propagated. The THC-content is lower than 0.2 %. The purpose is fibre production and/or oil crushed from seed. Application for Plant Breeders' Rights is possible. A permit is obligatory due to the vegetative propagation. DUS test takes place in open fields. The minimum duration of tests should normally be two independent growing cycles. **Application for listing is not possible at the moment, as these varieties do not belong to**



<p>the regular agricultural crops. VCU tests (Value for Cultivation and Use) are not applicable at the moment. NL-test fee for DUS is H2 (€ 2,797,- price level 2022). <u>See applicable fees.</u> NB: if you want to apply for a hemp variety in type B, always contact the Board for Plant Varieties first!</p>
<p>C) Hemp other than for fibre or oilseed, vegetatively propagated. The THC-content is higher or lower than 0.2%. This type is subject to the Opium Law as it is not intended for fibre production. Application for listing is not possible, and VCU testing is therefore not applicable. Application for Plant Breeders' Rights is possible. This type is intended for extraction of chemical components. The minimum duration of tests should normally be a single growing cycle. DUS testing takes place in the greenhouse. NL-test fee for DUS is H2 (€2,797 price level 2022). <u>See applicable fees.</u></p>
<p>D) Hemp other than for fibre or oilseed, seed propagated. The THC-content is higher or lower than 0.2%. This type is based on feminized seed. It is intended for extraction of chemical components. This type is subject to the Opium Law as it is not intended for fibre production. Application for listing is not possible, and VCU testing is therefore not applicable. Application for Plant Breeders' Rights is possible. The minimum duration of tests should normally be a single growing cycle. DUS testing takes place in the greenhouse. NL-test fee DUS is H3 (€ 3,897 price level 2022). <u>See applicable fees.</u></p>
<p>E) Hemp for fibre or oilseed, seed (feminized) propagated. The THC-content is lower than 0.2%. Application for listing and Plant Breeders' Rights is possible. This type is based on feminized seed. The minimum duration of tests should normally be two independent growing cycles. DUS and VCU tests (Value for Cultivation and Use) take place in open fields. If the application is for listing, VCU testing is obligatory. At this moment in NL VCU testing is only possible for fibre types and not for oilseed types. NL-test fee for DUS is H1 (€ 1,747 price level 2022). <u>See applicable fees.</u></p>
<p>The fees for hemp (fee H1, H2 and H3) are published on the website of the Dutch Board for Plant Varieties. See applicable fees. Based on information you give in the TQ, Naktuinbouw will determine which type your hemp belongs to.</p>

<end of selection menu and classifications>

Subject	Question	Answer
A2. Submission requirements for the various hemp types.	Where can I find the correct submission requirements for the various hemp types?	<p>All submission requirements are available on the <u>website of the CPVO</u>.</p> <ul style="list-style-type: none"> • For fibre/oil, seed propagated (type A). • For fibre/oil, vegetatively propagated (type B). • For fibre/oil, seed propagated based on feminized seed (type E). • Other than for fibre/oil, vegetatively propagated (type C). • Other than for fibre/oil, seed propagated, (type D).
A2A. General submission requirements	Are there also general submission requirements in force?	<p>Yes. These are available on the website of the Board for Plant Varieties: See <u>general submission requirements</u>. These requirements are generally valid and are intended to guarantee the absence of plagues and diseases (e.g. infections of micro-organisms such as bacteria or viruses) in the submitted plant material.</p>



Subject	Question	Answer
A3. For all hemp types.	The website lists the following groups: agricultural crops, ornamentals, vegetable crops, fruits and trees. Which group does my hemp variety belong to?	All hemp-types belong to the Agricultural crops group. NB: the indication 'medicinal hemp' is no longer used. See explanation below.
A3A. Possession and cultivation of hemp.	Is the possession and cultivation of all hemp-types permitted?	<p>No, absolutely not! The possession and cultivation of hemp other than for fibre or oilseed is subject to the Dutch Opium Law. This implies that the cultivation of these types is forbidden in principle. For the possession and cultivation of this hemp (see types C and D), a permit based on the Opium law is obligatory. Naktuinbouw has such a permit, in which it is agreed that all hemp of types C and D is cultivated in the greenhouse trials of Naktuinbouw.</p> <p>Types A, B and E are not subject of the opium law in NL and are in principle tested in the open field. If necessary for DUS research varieties of these types can also be tested in the greenhouse. Before submission of plant material for our greenhouse trials, you must send Naktuinbouw a copy of your permit (or other written approval from the BMC (Office of Medical Cannabis), for example an e-mail stating that this permit is not required).</p> <p>Permits can be obtained from: CIBG Bureau voor Medicinale Cannabis (BMC) 2500 BC Den Haag Postbus 16114 www.cannabisbureau.nl/</p> <p>Providing Naktuinbouw with a copy of your permit is sufficient.</p>
A4. Opium Law	In which cases is a variety subject to the 'Opium Law'?	Hemp varieties not for fibre/oil or with a THC-content higher than 0.2% dry matter cannot be listed in the Netherlands. This is forbidden under the terms of the 'Opium Law'. This is the case for types C and D, see above. These varieties are only permitted to be traded in a closed trade chain. The total yield must be sold to the Dutch Ministry of Health, Welfare and Sport for regulated use. As there is no listing, VCU testing (Value for Cultivation and Use) is not applicable. In contrast, for the protection of these varieties, it is possible to apply for PBR in the Netherlands or in Europe. The section below answers questions for Dutch Plant Breeders' Rights, listing and permits.
A5. Measuring THC-content.	When is THC-content measured?	The THC-content (and other active components) are measured at the moment of flowering. The analysis is performed on the female flower heads.



Subject	Question	Answer
A6. Hemp FORMERLY indicated as 'medicinal' hemp/cannabis.	Is it still possible to apply for medicinal hemp?	No. 'Medicinal' suggests that it is a medication. This is not the responsibility of the Board for Plant Varieties. Therefore, we only distinguish between hemp for fibre or oilseed and with a THC-content lower than 0.2%) and hemp other than for fibre or oilseed. For further information see question/answer A1 above.
A7. Plant Breeders' Rights	Is it possible to apply for Plant Breeders' Rights for hemp which contains more than 0.2% THC?	Yes. In all hemp types it is possible to apply for Dutch Plant Breeders' Rights. The THC-content and other cannabinoids such as CBD, CBG and CBN do not influence acceptance or refusal for PBR.
A8. Plant Breeders' Rights and protection	From which moment is my variety protected?	According to UPOV guidelines, the preliminary protection is valid from the date (moment) of application.
A9. Plant Breeders' Rights (PBR) and trading. See website Board	Is it permitted to trade a hemp variety that is protected by Plant Breeders' Rights (PBR)?	No. In the Netherlands a variety can only be traded if it is included in the national list (if the variety is 'listed'). A variety only protected by Plant Breeders' Rights but which is not included in the national list cannot be traded. Plant Breeders' Right is a right of intellectual property and only protects the variety from multiplication without the permission of the owner of the right.
A10. PBR and listing.	Is it possible to apply for listing and Dutch Plant Breeders' Rights in one application?	Yes, this is possible for the relevant types. This is only possible for hemp varieties for fibre with a THC-content lower than 0.2%. Listing in the Common Catalogue depends on the type which the variety belongs to. Listing is only possible for fibre varieties of type A and type E . Naktuinbouw drafts a DUS-report for listing and Breeders' Rights. For more information on listing see also A11 and A12.
A11. PBR and listing.	Is it possible to apply for PBR and listing for hemp with a THC-content higher than 0.2%?	No. Listing (and trading) these varieties is NOT possible, as this is not in line with the Dutch 'Opium Law'. If it becomes clear from the trials that the THC-content is higher than 0.2%, a negative decision for listing will be taken. In contrast, it is still possible to apply for PBR for varieties with a THC-content higher than 0.2%



Subject	Question	Answer
A12. Listing.	<i>Is listing possible for fibre hemp?</i>	<p>Yes, for varieties for fibre production that have a THC-content lower than 0.2%. Listing in the Common Catalogue depends on the type which the variety belongs to. Listing is only possible for varieties of type A (hemp for fibre or oilseed, seed multiplied) and for varieties of type E (hemp for fibre or oilseed, feminized seed).</p> <p>To list these varieties, a positive VCU-report is also obligatory!! (VCU is Value for Cultivation and Use, see A13).</p> <p>Varieties in type E for fibre production will be tested in accordance with the existing fibre hemp VCU protocol.</p> <p>Varieties in type A and E that are for oilseed production only cannot be listed at this moment because there is no applicable VCU protocol. Maybe in the near future (after 2022) it will be possible.</p> <p>Varieties in type B, hemp for fibre or oilseed, vegetatively propagated, cannot be listed as these varieties do not belong to the regular agricultural crops. Therefore VCU is not possible.</p>
A13. VCU testing. See <u>information VCU</u> . (VCU = Value for Cultivation and Use.)	<i>In which cases is VCU testing required?</i>	<p>According to the national directive, a VCU test is obligatory for listing of an Agricultural variety in NL.</p> <p>If the application is intended for listing, in the application it has to be indicated that a VCU-test must be carried out. A separate protocol for VCU is available.</p> <p>In the VCU-test it is also measured if new varieties contain less than 0,2% THC. This VCU test must be completed with a positive report. The VCU test is performed by the applicant, and finally assessed by the Board for Plant Varieties.</p> <p>Our current VCU protocol is for fibre types. Varieties in type A and E that are for oilseed production only cannot be listed at this moment, because there is no applicable VCU protocol. Maybe in the near future (after 2022) it will be possible.</p> <p>For more information on Listing, see A12</p>
A14. Hemp cultivation outdoors	<i>In addition to fibre characteristics, are other characteristics such as chemical active components taken into account in VCU testing?</i>	<p>No. In the Netherlands outdoor cultivation of hemp is only permitted for fibre / oil production. The Board has concluded recently that therefore only fibre characteristics are taken into account. Besides, in the VCU test it is measured if the THC-content is lower than 0,2%. Other chemical components are not measured. Another VCU criterion for these hemp varieties is that the dry matter yield (application for listing) must be higher than 97% of the average of the 3 most cultivated varieties which are listed in the Netherlands.</p>
A15. Authorisation for fibre hemp	<i>Temporary authorisation regulation.</i>	<p>At the moment of a listing request, it is possible to request temporary authorisation as well. See website NAK. In this way there is the risk that varieties (before they are officially listed) are traded with a too high THC-content. This is fully under the responsibility of the applicant.</p>



Subject	Question	Answer
A16. Permits.	<i>Is a permit required to import hemp plant material to NL/Naktuinbouw from other countries within or outside the EU?</i>	Only for cuttings and other vegetative plant material, usually an import permit and an export permit are obligatory. However, this is subject to local law – check your local inspection office. In most countries, before shipment, the applicant must supply an export permit. For this we (Naktuinbouw) will submit our import permit per applicant to be able to match both permits. In some countries export permits are not prepared. In such cases, please notify Naktuinbouw as soon as possible. Without an import permit, plant material cannot be received. This is also valid for vegetatively propagated varieties with a THC-content lower than 0.2 %. This is the case for types B, and possibly C (see above). For technical aspects of submission of plant material, see <u>Submission of cannabis cuttings.</u>
A17. Permits.	<i>Are import and export permits obligatory in order to submit clones to Naktuinbouw, if the material is already in the Netherlands?</i>	<i>No. If the material is already in NL, import and export permits are not needed. However, a dispensation is needed in the framework of the ‘Opium Law’ in order to transport the material. This is the responsibility of the applicant. A transport dispensation can be requested from the BMC (Office of Medicinal Cannabis):</i> CIBG Bureau voor Medicinale Cannabis 2500 BC Den Haag Postbus 16114 <u>www.cannabisbureau.nl/</u> <i>Providing Naktuinbouw with a copy of this permit is sufficient.</i>
A18. Permits.	<i>Is a permit required to send seed from e.g. Spain?</i>	<i>The Board for Plant Varieties does not know if permits or phytosanitary documents are required. It is the explicit responsibility of the applicant to arrange the necessary documents. For questions on this subject, please contact your local phytosanitary service organisation.</i>
A19. Permits.	<i>What happens if my fibre hemp variety has a THC-content which is too high?</i>	<i>The control/check of the THC-content is a DUS-characteristic that is measured at the end of the growing cycle (during flowering). Trading of a fibre hemp variety with a too high THC-content (higher than 0.2% THC in dry matter) is illegal. This risk is therefore fully under the responsibility of the applicant.</i>
A20. Multiplication method.	<i>Is there a difference in the positive decision and/or listing between vegetative clones versus seed?</i>	<i>No (for PBR) and yes for listing and VCU. The multiplication method is not of importance for decisions relating to Plant Breeders’ Rights of the variety. However, for listing/VCU only seed multiplied varieties are accepted (and only for fibre use). Vegetatively propagated varieties (cuttings) do not belong to the regular agricultural crops. Therefore VCU is not applicable.</i>



Subject	Question	Answer
A21. Multiplication method.	Is it possible to submit an application (Plant Breeders' Rights, listing) for a hemp variety as a clone (cuttings) and, at a later stage, trade the material as seed?	No. The propagating material must comply with the original variety description, the requests for maintenance and the requested variety trueness and variety pureness. For seed propagated varieties, different requirements are in force, which may lead to difficulties due to differences with the clones.
A22. Multiplication method.	Is it possible to submit plant material from tissue culture for the DUS test?	No. According the requirements in the S2/S3 of CPVO the material should be well rooted cuttings in plug from 12-15 cm.
A23. Returning of plant material after testing.	Is it possible to return plant material after testing to the applicant?	No. Our permit in the framework of the Opium Law does not allow us to send back plant material of type C and D to the applicant. Some plants of an application are included in the living reference collection after the test. The rest of the plants will be destroyed by us. Also supplying plant material of these types to other entities that the applicant indicates is not possible. The maintenance of the plant material of the protected variety is the responsibility of holder of the plant variety right.
A24. Hemp applications for outside the EU.	Can we trade our hemp seeds in the USA or Canada?	Yes. European legislation and regulations are not valid for trading outside Europe. For these countries, the legislation of the country to which the seed is exported is valid and applicable. The local regulations of the country in which is traded are valid.
A25. Take-over by authorities outside the EU.	Can an authority outside the EU take over reports from the Netherlands?	Foreign authorities are free to take over Dutch reports or EU reports. This is their decision. This is the case for various crops; but there have been no cases for hemp up until now.
A26. Multi-purpose varieties.	Is it possible to register so-called multi-purpose varieties for listing?	No. Multi-purpose varieties are usually intended for (1) fibre production and (2) chemical ingredients. If the Board receives a multi-purpose application, it will ask the applicant to choose between (1) fibre or (2) chemical ingredients. According to the Opium Law, only purpose (1) is allowed for listing. Purpose (2) is not allowed for listing.
A27. Multi-purpose varieties.	Is it possible to change the type during the application process?	No. The type must be chosen with the application. Based on the type, the DUS test will be set up (open field/greenhouse, amount of plants. etc.). It can't be changed during the application process. Also in case of listing the type should be the same as the type chosen for PBR.
A28. Multi-purpose varieties.	Can I choose the type myself in case the THC content is around 0.2	Yes. You can choose the type yourself. E.g. if the THC content of your variety is 0.19 to 0.2%, you can decide to apply for type A or B. But the risk is yours; in case we measure a content of 0.2% or higher, than the DUS report will be negative. As noted in A25 it will not be possible than to change to C or D in that case.