

No.

202000033



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Llosá Llácer, Ernesto Rafael

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

An application requesting a certificate of protection for an alleged novel variety of sexually reproduced, asexually reproduced, or tuber propagated plant, the name and description of which are contained in the application and exhibits, a copy of which is hereunto annexed and made a part hereof, and the various requirements of law in such cases made and provided have been complied with, and the title thereto is, from the records of the PLANT VARIETY PROTECTION OFFICE, in the applicant(s) indicated in the said copy, and whereas, upon due examination made, the said applicant(s) is (are) adjudged to be entitled to a certificate of plant variety protection under the law.

Now, therefore, this certificate of plant variety protection is to grant unto the said applicant(s) and the successors, heirs or assigns of the said applicant(s) for the term of TWENTY years from the date of this grant, subject to the payment of the required fees and periodic replenishment of viable germplasm material of the variety in a public repository as provided by law, the right to exclude others from selling the variety, or offering it for sale, or reproducing it, or importing it, or exporting it, or conditioning it for propagation, or stocking it for any of the above purposes, for using it in producing a hybrid or different variety there from, to the extent provided by the PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)



HEMP

'HURV19PAN'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirtieth day of November, in the year two thousand and twenty.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture



U.S. Department of Agriculture
Agricultural Marketing Service, Science & Technology Program
Plant Variety Protection Office

ST470 - Application for Plant Variety Protection Certificate Application #: 202000033

Owner / Applicant / Organization

Llosá Llácer, Ernesto Rafael

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Owner Representative / Agent

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Spain

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Experimental Name: Filing Date 11/21/2019

Variety Name: HURV19PAN

Crop Kind: Hemp

ST470 Main

1. Genus and Species name of crop

Cannabis sativa L.

2. Family name (Botanical)

Cannabis sativa L.

3. Is the variety a first generation hybrid?

No

4. Does the variety contain any Transgenes?

No

5. Does the owner specify that seed of this variety be sold only as a class of certified seed? (see section 83(a) of the plant variety protection act)

No

6. Has the variety (including any harvested material) or a hybrid produced from this variety been sold, disposed of, transferred, or used in the U.S. or other countries?

No

7. Is the variety or any component of the variety protected by intellectual property right?
(plant breeder's right or patent)

Yes

Country, date of filing or issuance and assigned reference number:

Europe (CPVO)

Date of filing: 10/31/2019 (October 31, 2019)

Application Number: 2019/2758

Exhibit A - Origin and Breeding History

1. Genealogy (back to and including public and commercial varieties, lines, or clones used) and the breeding method(s).

The HURV19PAN is a hybrid product of the crossing of the two female clones. For its obtention, clone No. 65 is used as a female parent and clone No. 13 is used as a male parent, to which a silver thiosulfate treatment is applied to reverse its sex.

2. Give the details of subsequent stages of selection and multiplication.

3. Is the variety uniform?

Yes

How did you test for uniformity?

300 plants were planted, analyzed by chromatography and PCR, all of them were pure CBG

4. Is the variety stable?

Yes

How did you test for stability? Over how many generations?

Syntasta Analysis:
Chromatography

5. Are genetic variants observed or expected during reproduction and multiplication?

No

Exhibit A Attached Files List

File Name	Last Modified On
Breeding sheme.docx	11/21/2019 9:40:04 AM

HURV19PAN -- BREEDING SCHEME --

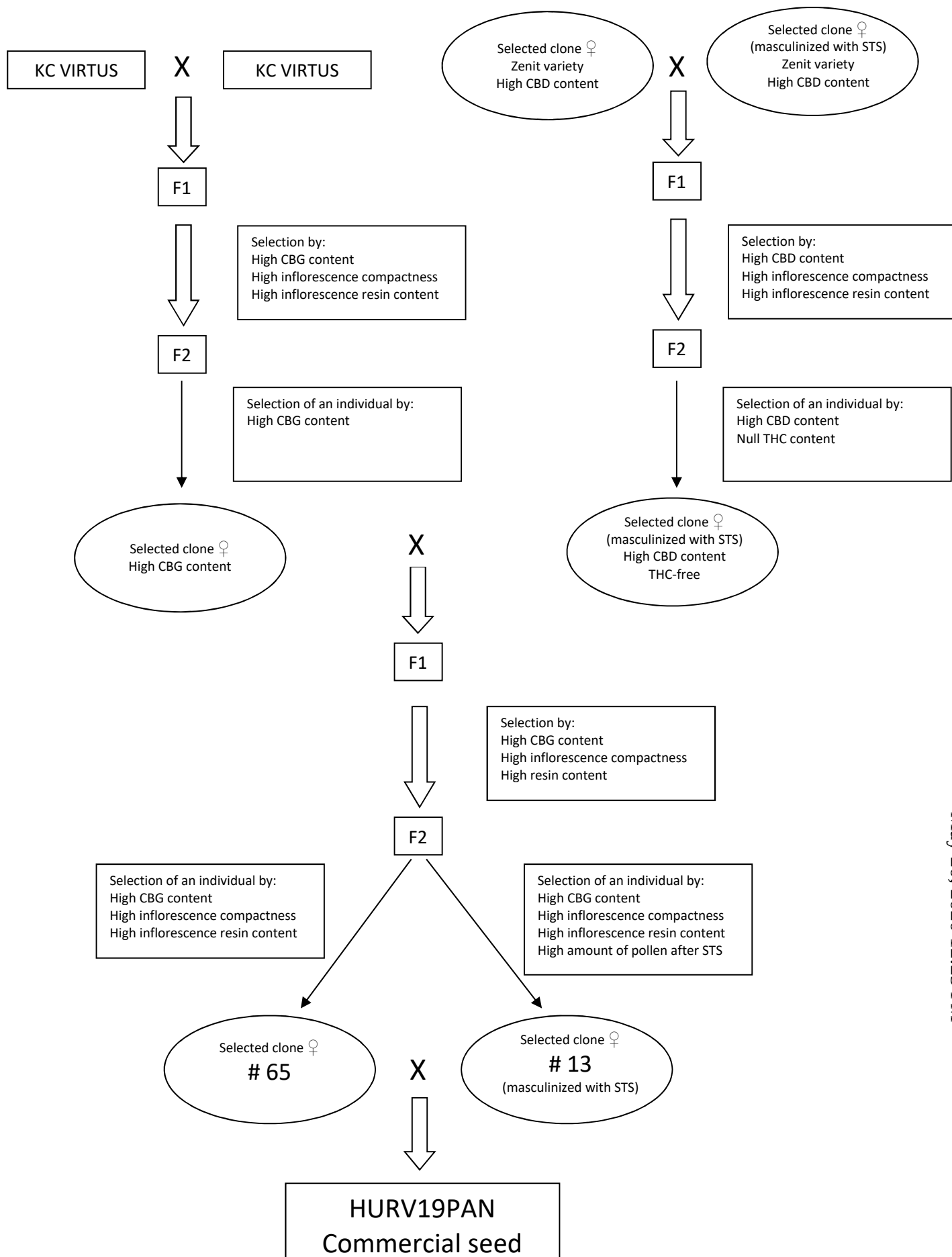


Exhibit B - Statement of Distinctness

1. Based on overall morphology. Applicant's new variety HURV19PAN
is most similar to Comparison Variety Santhica 70

2. Application Variety Traits

Sex: gynoeceious

Branching level: very high

Inflorescence compactness: very high

Amount of resin: very high

3. Comparison Variety1 Additional Comments? **Santhica 70**

Sex: monoecious

Branching level: low

Inflorescence compactness: very low

AMount of resin: very low

4. Comparison Variety2 Additional Comments?

5. Comparison Variety3 Additional Comments

Exhibit B Attached Files List

File Name

Last Modified On

Exhibit C

Hemp

A . Morphology

I. Plant

1 . Did you confirm that this variety has no more than 0.3% delta-9 tetrahydrocannabinol (THC) Concentration Level Based on Dry Weight Analysis?

Yes

2 . Initials to Confirm That This Variety is 0.3% THC Content or Less Based on Dry Weight Analysis

0% Institut de Conservació i Millora de 'Agrodiversitat Valenciana - Universidad Politecnica de València

3 . Plant Type

Sexually Propagated

4 . Proportion of Hermaphrodite (Bisexual) Plants

Low (<5%)

5 . Proportion of Female Plants

High (>95%)

6 . Proportion of Male Plants

Low (<5%)

7 . Natural Plant Height (At Flowering)

Medium

8 . Natural Plant Height (At Flowering) (cm)

9 . Branching

Strong

II. Seedling

1 . Cotyledon Shape

Broad Obovate

2 . Cotyledon Color

Medium Green

3 . Hypocotyl Intensity of Anthocyanin Coloration

Weak

III. Stem

1 . Main Stem Color

Medium Green

2 . Main Stem Length of Internode

Medium

3 . Main Stem Length of Internode Mean of 20 (cm)

10.2

4 . Main Stem Thickness

Thick

5 . Main Stem Depth of Grooves

Medium

6 . Main Stem Pith in Cross-Section

Thick

7 . Plant Anthocyanin Coloration of Crown

Absent or Very Weak

IV. Leaves

1 . Leaf Intensity of Green Color

Medium

2 . Leaf Length of Petiole

Medium

3 . Leaf Length of Petiole Mean of 20 (cm)

9.7

4 . Leaf Anthocyanin Color of Petiole

Weak

5 . Leaf Number of Leaflets

Few (<7)

6 . Central Leaflet Length

Medium

7 . Central Leaflet Length Mean of 20 (cm)

26

8 . Central Leaflet Width

Medium

9 . Central Leaflet Width Mean of 20 (mm)

34

V. Inflorescence

1 . Time of Male Flowering

~~Medium~~

2 . Flowering Date (Male) Number of Days (Julian)

3 . Male Flowers Anthocyanin Coloration

4 . Inflorescence THC Content

Absent or Very Low

VI. Seed

1 . Seed Weight class (wt of 1000 seed)

2 . 1000 Seed Weight (g)

17

3 . Seed Color of Testa

Brown

4 . Seed Marbling of Color

Medium

5 . Seed Color of Testa Color Code (RHS/Munsell)

151A RHS 164A (greyed-orange group)

6 . Seed Shape

Ovate

B . Disease Resistance

I. Disease Resistance

1 . Gray Mold (Botrytis)

Not Tested

2 . Sclerotinia Stem Canker

Not Tested

3 . Fusarium Wilt

Not Tested

4 . Southern Blight

Not Tested

5 . Fusarium Stem Canker

Not Tested

6 . Charcoal Rot

Not Tested

7 . Fusarium Root Rot

Not Tested

8 . Phymatotrichum Root Rot

Not Tested

9 . Brown Leaf Spot

Not Tested

10 . Septoria Leaf Spot

Not Tested

11 . Cercospora Leaf Spot

Not Tested

12 . Diaporthe Ganjae Spot

Not Tested

13 . Bacterial Leaf Spot

Not Tested

14 . Disease Resistance Other

C . Insect Resistance

I. Insect Resistance

1 . European Corn Borer

Not Tested

2 . Hemp Borer (Grapholita)

Not Tested

3 . Root-Knot Nematodes

Not Tested

4 . Insect Resistance Other

D . Uses

1 . Uses

Oil

E . Comments

1 . Please Include Extra Information About Variety Here

Content of phytocannabinoids: female inflorescence

CBD: 0%

THC: 0%

CBG: 10-15%

Flowering is controlled by photoperiod = short day/long night

Exhibit D - Additional Descriptive Information

Additional descriptive question / text:

Additional descriptive answer / information in detail:

Exhibit D Attached Files List

File Name

Last Modified On

Exhibit E - Statement of the Basis of Ownership**1. Does the applicant own all rights to the variety?**Yes**2. Is the applicant a U.S. national or a U.S. based entity?**No**Applicant Country:**Spain**3. Is the applicant the original owner?**Yes**4. Additional explanation on ownership (Trace ownership from original breeder to current owner):**

At the beginning, this variety had two breeders. The second breeder transferred his rights in favor of the first and sole applicant/breeder of this application.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.