## TIHE UNITIED STATIES ON AMERICA

## TO ALL TO WHOM THESE PRESENTS SHALL COME:

## RAGT 2N

## Whereas, there has been presented to the

## Secretary of Agriculture

An application requesting a certificate of protection for an alleged distinct variety of sexually 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 basic seed 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, or using it in producing a hybrid or different variety therefrom, to the extent provided by the PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)


Attest:

PEA, FIELD
'Navarro'
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 eleventh day of March, in the year two thousand and fourteen.


Commissioner
Plant Variety Protection Office Agricultural Marketing Service



# Breeding History 

Species: Proteaginous pea
Pisum sativum
Variety: Navarro : SR.4266.3
Year:

| Activity: |  |
| :--- | :--- |
| 2001 | Crosse: Lumina x SR 9573 |
| 2001 to 2004 | Selection of F-5 lines by Bulks and pedigree method, <br> using the counter-season in Chile. |
| 2005 | Performance test of F-6-lines: 2 locations (France) |
| 2006 | Performance test of F-7-lines: 4 locations (France) <br> Multiplication in local isolation (FRANCE) |
| 2007 | Performance test of F-9-lines: 16 locations (CEE) <br> Multiplication in local isolation (FRANCE) <br> Application France Official trial |
| 2009 | Private and official trial in France + trial CEE + <br> Testing in Private trials of DL Seeds + Legume Logics |
| $2010-2012$ | Registration in France <br> Testing in private trials of DL Seeds + Legume Logics |

General performance in this situation would be maturity, straw strength yield, quality and resistance to disease.

per email of
08-09-2013
MAH

This line is a stable breeding line having been tested in generations greater than F9. In two years of testing in Canada and the USA there were no off-types or variants observed in this line.

SR4266.3 Statement of Distinctness (Navarro)

## Exhibit B

SR4266.3 (Navarro) is similar to CDC Golden and DS-Admiral but distinct. SR4266.3 is shorter, has significantly shorter stipules ( $\mathrm{p}<0.0016$ ), a shorter peduncle ( $\mathrm{p}<1.55 \mathrm{E}-31$ ), larger pods ( $\mathrm{p}<1.8 \mathrm{E}-23$ ) and shorter petiole ( $\mathrm{p}<5.6 \mathrm{E}-27$ ) than the check variety DSAdmiral. SR 4266.3 is shorter ( $\mathrm{p}<9.1 \mathrm{E}-7$ ), has shorter stipules ( $\mathrm{p}<0.032$ ), and larger pods ( $\mathrm{p}<1.9 \mathrm{E}-35$ ) than CDC Golden. There is no significant difference when comparing petiole length between the two entries. This line is a stable breeding line having been tested in generations greater than F9. In two years of testing in Canada and the USA there were no off-types or variants observed in this line. PVP data was collected over two years (2011 and 2012). Data was summarized by year and statistical significance evaluated on all data using single value ANOVA and reported as such in Table 1for 2012 and table 2 for 2011. Name clearance was completed in October of 2011 see Fig 1.

Sun Valley PVP Summary

| Height |  | Admiral Golden |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | SR 4266.3 |
|  | mean | 107.85 | 88.65 | 80.75 |
|  | standard deviation | 11.24 | 13.04 | 8.69 |
|  | minimum | 80 | 60 | 55 |
|  | maximum | 125 | 120 | 100 |
|  | number measured | 100 | 100 | 100 |
| Stipule Length | mean | 54.6691 | 51.1779 | 45.6925 |
|  | standard deviation | 9.17 | 6.83 | 6.93 |
|  | minimum | 31.49 | 36.13 | 31.55 |
|  | maximum | 71.44 | 66.96 | 68.24 |
|  | number measured | 100 | 100 | 100 |
| Stipule Width | mean | 28.38 | 23.91 | 22.63 |
|  | standard deviation | 5.52 | 4.14 | 3.81 |
|  | minimum | 14.93 | 15.24 | 15.51 |
|  | maximum | 39.17 | 33.5 | 34.54 |
|  | number measured | 100 | 100 | 100 |
| \# FIr bearing nodes | mean | 8.38 | 9.11 | 4.57 |
|  | standard deviation | 1.89 | 2.63 | 1.13 |
|  | minimum | 4 |  | 2 |
|  | maximum | 12 | 15 | 8 |
|  | number measured | 100 | 100 | 100 |
| Peduncle Length | mean | 71.67 | 27.79 | 39.51 |
|  | standard deviation | 15.69 | 11.93 | 8.90 |
|  | minimum | 24.72 | 9.06 | 23.14 |
|  | maximum | 117.11 | 58.91 | 68.73 |
|  | number measured | 100 | 100 | 100 |
| Pod length |  | 56.94 | 56.17 | 61.24 |
|  | standard deviation | 6.52 | 6.34 | 6.70 |
|  | minimum | 37.39 | 40.84 | 44.83 |
|  | maximum | 73.25 | 70.59 | 77.23 |
|  | number measured | 100 | 100 | 100 |
| Pod width | mean | 12.22 | 12.71 | 13.10 |
|  | standard deviation | 1.03 | 1.33 | 1.05 |
|  | minimum | 9.12 | 8.57 | 10.9 |
|  | maximum | 14.84 | 16.44 | 16.22 |
|  | number measured | 100 | 100 | 100 |
| petiole length | mean | 69.94 | 65.97 | 62.50 |
|  | standard deviation | 11.16 | 11.89 | 12.28 |
|  | minimum | 37.61 | 40.28 | 31.17 |
|  | maximum | 90.85 | 93.63 | 91.35 |
|  | number measured | 100 | 100 | 100 |
| flr standard width | mean | 21.20 | 20.54 | 17.17 |
|  | standard deviation | 1.43 | 1.50 | 2.54 |
|  | minimum | 17.15 | 16.47 | 14.18 |
|  | maximum | 22.94 | 22.08 | 21.9 |
|  | number measured | 15 | 15 | 13 |

Sun Valley PVP Summary 2012

|  |  | Admiral | Golden | $\begin{aligned} & \text { Navarro } \\ & \text { (SR4266.3) } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Height (cm) | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 94.40 \\ 7.86 \\ 70.00 \\ 110.00 \\ 100 \end{array}$ | $\begin{array}{r} 94.45 \\ 11.21 \\ 70.00 \\ 120.00 \\ 100 \\ \hline \end{array}$ | $\begin{array}{r} 87.74 \\ 7.04 \\ 70.00 \\ 105.00 \\ 100 \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 1.76433E-09 shorter $9.1678 \mathrm{E}-07$ shorter |
| Stipule Length (mm) | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 56.89 \\ 8.58 \\ 21.04 \\ 85.75 \\ 100 \end{array}$ | $\begin{array}{r} 57.84 \\ 8.04 \\ 35.83 \\ 76.23 \\ 100 \end{array}$ | $\begin{array}{r} 54.57 \\ 6.48 \\ 38.70 \\ 67.69 \\ 100 \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 0.032426041 shorter 0.001686495 shorter |
| Stipule Width (mm) | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 29.99 \\ 6.96 \\ 16.41 \\ 80.89 \\ 100 \\ \hline \end{array}$ | $\begin{array}{r} 37.50 \\ 14.33 \\ 16.59 \\ 75.8 \\ 100 \\ \hline \end{array}$ | $\begin{array}{r} 27.30 \\ 3.41 \\ 17.07 \\ 37.52 \\ 100 \\ \hline \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 0.000626066 narrower <br> 5.75436 E -11 narrower |
| \# Flr bearing nodes | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 6.08 \\ 1.43 \\ 3.00 \\ 10.00 \\ 100 \\ \hline \end{array}$ | $\begin{array}{r} 6.13 \\ 1.64 \\ 3.00 \\ 10.00 \\ 100 \\ \hline \end{array}$ | $\begin{array}{r} 3.68 \\ 0.95 \\ 1.00 \\ 6.00 \\ 100 \\ \hline \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 3.00951E-31 fewer <br> 5.75436E-11 fewer |
| Peduncle Leng (mm) | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 79.44 \\ 18.79 \\ 12.68 \\ 128.20 \\ 100 \\ \hline \end{array}$ | 48.17 <br> 16.81 <br> 13.25 <br> 97.11 <br> 100 | $\begin{array}{r} 47.44 \\ 12.90 \\ 14.94 \\ 77.75 \\ 100 \\ \hline \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 1.54795E-31 shorter <br> 0.728058693 No Diff |
| Pod length (mm) | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 60.54 \\ 7.84 \\ 36.48 \\ 95.06 \\ 100 \\ \hline \end{array}$ | 56.75 <br> 7.56 <br> 35.53 <br> 72.50 <br> 100 | $\begin{array}{r} 72.51 \\ 6.91 \\ 54.54 \\ 85.14 \\ 100 \\ \hline \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 1.18362E-23 longer <br> 1.17601E-35 longer |
| Pod width (mm) | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 10.79 \\ 1.30 \\ 7.14 \\ 13.83 \\ 100 \\ \hline \end{array}$ | $\begin{array}{r} 11.16 \\ 1.14 \\ 8.47 \\ 14.37 \\ 100 \\ \hline \end{array}$ | $\begin{array}{r} 11.18 \\ 0.78 \\ 9.23 \\ 13.65 \\ 100 \\ \hline \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 0.010275213 Narrower <br> 0.861049025 No Diff |
| petiole length $(\mathrm{mm})$ | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 83.65 \\ 10.47 \\ 57.55 \\ 101.03 \\ 100 \\ \hline \end{array}$ | $\begin{array}{rr} 5 & 76.59 \\ , & 14.70 \\ j & 35.27 \\ 3 & 112.07 \\ & 100 \\ \hline \end{array}$ | $\begin{array}{r} 63.45 \\ 12.20 \\ 27.20 \\ 89.43 \\ 100 \\ \hline \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | $5.09074 \mathrm{E}-27$ shorter <br> $7.59611 \mathrm{E}-11$ shorter |
| flr standard width <br> (mm) | mean <br> standard deviation <br> minimum <br> maximum <br> number measured | $\begin{array}{r} 26.21 \\ 1.42 \\ 22.24 \\ 29.21 \\ 100 \\ \hline \end{array}$ | 25.93 <br> 1.73 <br> 21.57 <br> 30.23 <br> 100 | $\begin{array}{r} 21.10 \\ 3.04 \\ 13.02 \\ 26.03 \\ 100 \\ \hline \end{array}$ | Admiral vs. Navarro Golden vs. Navarro | 3.68497E-35 wider $8.56891 \mathrm{E}-31$ wider | an equal opportunity provider and employer.

# U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE <br> SCIENCE AND TECHNOLOGY <br> PLANT VARIETY PROTECTION OFFICE <br> BELTSVILLE, MD 20705 

## OBJECTIVE DESCRIPTION OF VARIETY

 Pea (Pisum sativum L.)
## NAME OF APPLICANT (S) <br> RAGT/R2N

## temoorarv or exerementral ossionation

Sr 4266.3

ADDRESS (Street and No. or RD No., City, State, Zip Code and Country)

## 60 Rue Emile Singla, Site de Bourran, F-12033 Rodez Cedex France

Email:

## pdeclerck@ragt.fr

## VARIETY NAME <br> Navarro

## FOR OFFICIAL USE ONLY

## 201300192

PLEASE READ ALL INSTRUCTIONS CAREFULLY: Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g., $\left.\begin{array}{|l|l|l|l|l|}\hline 0 & 9 & 9 & \text { or } & 0\end{array}\right)$ ) when the number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: $\qquad$ Please answer all questions for your variety; lack of response may delay progress of your application.

1. TYPE:
$2 \quad 1$ = Garden 2 = Field 3 = Edible-pod 4 = Other (Specify)
2. MATURITY:


No. of Days Processing


Heat Units

3. PLANT HEIGHT:

cm High

| cm Shorter Than | $\square$ |
| :--- | ---: |
| Same As | $\square$ |
| cm Taller Than | 7 |
|  |  |

Name of Check Cultivar CDC Golden
Same as Check Cultivar $\qquad$
Name of Check Cultivar
4. VINE:

| 1 | Habit: | $1=$ Determinate | $2=$ Indeterminate |  |
| :--- | :--- | :--- | :--- | :--- |
| 1 | Branching: | $1=$ None (Alaska) | $2=1-2$ Branches (Little Marvel) | $3=$ More than 2 Branches (Dwarf Gray Sugar) |
| 1 | Internodes: | $1=$ Straight | $2=$ Zig Zag |  |
| 1 | Stockiness: | $1=$ Slim (Alaska) | $2=$ Medium (Thomas Laxton WR) | $3=$ Heavy (Alderman) |
| 1 | 5 |  |  |  |

5. LEAFLETS:

6. STIPULES:

2 Stipule Size: $1=$ Small $2=$ Medium 3 = Large

Please Provide Comparitive Varieties (Check Varieties) and Stipule Color

|  | Variety (1) | Variety (2) | Variety (3) |
| :---: | :---: | :---: | :---: |
| Variety Name: | CDC Golden | DS-Admiral |  |
| Stipule Size: | 2 | 2 |  |
| Color: | 2 | 2 |  |

7. FLOWER COLOR:
$\square \begin{array}{llll}\square & \text { Venation } & \boxed{1} & \boxed{1} \text { Wing }\end{array}$
$1=$ White $\quad 2=$ Greenish $\quad 3$ Lavender $\quad 4=$ Purple $\quad 5=$ Red $\quad 6=$ Other (Specify)
8. PODS:

9. SEEDS: (95-100 Tenderometer)

5
Color: 1 = Light Green $5=$ Yellow $\quad 6=$ Brown $\quad 7=$ Yellow Green

| Color: | $1=$ Light Green | $2=$ Green |
| :--- | :--- | :--- |
|  | $5=$ Yellow | $6=$ Brown |

$\qquad$

9. SEEDS: (cont.) (Dry-Mature)
$3 \quad$ Shape: 1 = Flattened $2=$ Angular $3=$ Oval 4 = Rounded

$$
\text { Color Pattern: } \quad 1=\text { Monocolor } \quad 2=\text { Mottled } \quad 3=\text { Striped } \quad 4 \text { = Dotted }
$$



| 2 | Hilum Color: | $1=$ White | $2=$ Tan | $3=$ Black |
| :--- | :--- | :--- | :--- | :--- |
| 2 | Cotyledon Color: | $1=$ Green | $2=$ Yellow | $3=$ Orange |
| 2 |  |  |  |  |
| 2 | 5 | Grams per 100 Seeds |  |  |

10. DISEASE: $(0=$ Not Tested, $1=$ Susceptible, $2=$ Resistant, $3=$ Moderately Resistant, $4=$ Moderately Susceptible, $5=$ Tolerant $)$

| Fusarium Wilt - Race 1 | Fusarium Wilt (Near Wilt) - Race 2 |
| :---: | :---: |
| Ascochyta Blight | Common Mosaic |
| Bacterial Blight | Pea Enation Mosaic Virus |
| Downy Mildew | Seedborne Mosaic Virus |
| Powdery Mildew | Yellow Bean Mosaic Virus |
| Other (Specify) | Leaf Roll Virus |
| Other (Specify) | Other (Specify) |

11. INSECT: ( $0=$ Not Tested, $1=$ Susceptible, $2=$ Resistant, $3=$ Moderately Resistant, $4=$ Moderately Susceptible, $5=$ Tolerant $)$
$\square$ Aphids
Other (Specify) $\qquad$
12. Additional informtion on any item above, or general comments that may aid in identification:

Navarro is a pure breeding line (> F9) with no variants or off types identified in 2 years of testing.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

## STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S)

## RAGT/R2N

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)

60 Rue Emile Singla,
Site de Bourran, F-12033 Rodez Cedex
France

| 2. TEMPORARY DESIIGNATION <br> OR EXPERIMENTAL NUMBER | 3. VARIETY NAME |
| :--- | :--- |
| SR4266.3 |  |$\quad$ Navarro.

7. PVPO NUMBER
8. Does the applicant own all rights to the variety? Mark an " $X$ " in the appropriate block. If no, please explain.
9. Is the applicant a U.S, national or a U.S. based entity? If no, give name of country.
a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
$\square$ NO If no, give name of country
b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?


NO If no, give name of country
11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

## PLEASE NOTE:

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

1. 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.
2. 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.
3. 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.

[^0]

 TDD),
 equal opportunity provider and employer

# USS. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY <br> PLANT VARIETY PROTECTION OFFICE <br> BELTSVILLE, MD 20705 

EXHIBIT F
DECLARATION REGARDING DEPOSIT


I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.


Signature


## NATIONAL CENTER FOR GENETIC RESOURCES PRESERVATION DEPOSIT FORM FOR PLANT VARIETY PROTECTION VOUCHER SAMPLE



## Block 5. For Internal Government use only:

PI No. $\qquad$ NSSL Serial No. $\qquad$
PVP Examiner $\qquad$

SEED SAMPLE DEPOSIT:
\% Viable: Date Tested:
Seed No. in Storage:
Date Received: $\qquad$


[^0]:    According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond fo a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581 -0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.
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