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NAKTUINBOUW APPLICATION AND INFORMATION DATABASE: INTEGRATED IT-TOOL TO MANAGE APPLICATIONS, REQUESTS, TRIALS, REPORTS AND VARIETY COLLECTIONS

*Document prepared by an expert from the Netherlands**Disclaimer: this document does not represent UPOV policies or guidance*

The Annex to this document contains a copy of a presentation on “Naktuinbouw application and information database: Integrated IT-tool to manage applications, requests, trials, reports and variety collections” that will be made at the thirty-fourth session of the Technical Working Party on Automation and Computer Programs (TWC).

Abbreviations:

| | |
|-------|--|
| CPVO | Community Plant Variety Office of the European Union |
| GEVES | Variety and Seed Study and Control Group |
| ISTA | International Seed Testing Association |
| NAK | Dutch General Inspection Service for Agricultural Seed and Seed Potatoes |
| VCU | Value for Cultivation and Use |

Kees van Ettehoven, Head, Variety Registration Department, Naktuinbouw

[Annex follows]

NAKTUINBOUW APPLICATION AND INFORMATION DATABASE: INTEGRATED IT-TOOL TO MANAGE APPLICATIONS, REQUESTS, TRIALS, REPORTS AND VARIETY COLLECTIONS





Context

- Naktuinbouw is the Netherlands inspections service for Horticulture (Inspection and certification, Quality and Plant health controls), ISTA station and the Dutch DUS institute for Plant Breeders' Rights and National Listing.
- The Varieties & Trials department is responsible for the DUS tests, the post-, and maintenance control fieldtrials, all administrative procedures, the National Gazette, management of reference collections.



Varieties & trials

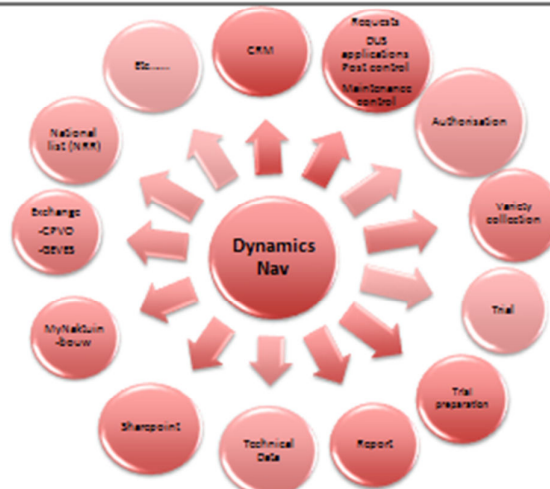
- 14 ha trial fields, 3 ha Glasshouses, 60 staff members
- Annually 2000 applications for DUS tests
- Annually 10.000 samples in trials
- DUS tests in prox 450 different species, mainly ornamentals, vegetables and potatoes.
- Entrusted by CPVO.

- All processes are managed by one central Administrative management system; Microsoft Dynamics Nav (Nav)



Content

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13. MyNaktuinbouw
14. National Variety Register (NRR)
15. Authorisation
16. Customer Relation management (CRM)
17. Time registration



1. Applications and requests

- ❑ All applications and requests managed by the Applications menu in Nav.
- ❑ Different overviews by using filters, for example: all requests that have just been received, see example.
- ❑ Requests are received by the Board for Plant Varieties or CPVO (DUS) or Naktuinbouw. Each request is categorized in the relevant category: Variety testing (DUS applications), inspection, maintenance, resistance, VCU, administrative etc..

| ID | Status | Overeenkomst | AP code | AP Na | Aanvraag | Acties | Acties | Verrijktijd | Verrijktijd |
|-------|--------|--------------|---------|-------|----------|--------|--------|-------------|-------------|
| 40000 | Actief | Verrijktijd | 40000 | 40000 | 1 | 1 | 1 | 1 | 1 |
| 40001 | Actief | Verrijktijd | 40001 | 40001 | 1 | 1 | 1 | 1 | 1 |
| 40002 | Actief | Verrijktijd | 40002 | 40002 | 1 | 1 | 1 | 1 | 1 |
| 40003 | Actief | Verrijktijd | 40003 | 40003 | 1 | 1 | 1 | 1 | 1 |
| 40004 | Actief | Verrijktijd | 40004 | 40004 | 1 | 1 | 1 | 1 | 1 |
| 40005 | Actief | Verrijktijd | 40005 | 40005 | 1 | 1 | 1 | 1 | 1 |
| 40006 | Actief | Verrijktijd | 40006 | 40006 | 1 | 1 | 1 | 1 | 1 |
| 40007 | Actief | Verrijktijd | 40007 | 40007 | 1 | 1 | 1 | 1 | 1 |
| 40008 | Actief | Verrijktijd | 40008 | 40008 | 1 | 1 | 1 | 1 | 1 |
| 40009 | Actief | Verrijktijd | 40009 | 40009 | 1 | 1 | 1 | 1 | 1 |
| 40010 | Actief | Verrijktijd | 40010 | 40010 | 1 | 1 | 1 | 1 | 1 |
| 40011 | Actief | Verrijktijd | 40011 | 40011 | 1 | 1 | 1 | 1 | 1 |
| 40012 | Actief | Verrijktijd | 40012 | 40012 | 1 | 1 | 1 | 1 | 1 |
| 40013 | Actief | Verrijktijd | 40013 | 40013 | 1 | 1 | 1 | 1 | 1 |
| 40014 | Actief | Verrijktijd | 40014 | 40014 | 1 | 1 | 1 | 1 | 1 |
| 40015 | Actief | Verrijktijd | 40015 | 40015 | 1 | 1 | 1 | 1 | 1 |
| 40016 | Actief | Verrijktijd | 40016 | 40016 | 1 | 1 | 1 | 1 | 1 |
| 40017 | Actief | Verrijktijd | 40017 | 40017 | 1 | 1 | 1 | 1 | 1 |
| 40018 | Actief | Verrijktijd | 40018 | 40018 | 1 | 1 | 1 | 1 | 1 |
| 40019 | Actief | Verrijktijd | 40019 | 40019 | 1 | 1 | 1 | 1 | 1 |
| 40020 | Actief | Verrijktijd | 40020 | 40020 | 1 | 1 | 1 | 1 | 1 |

1. Applications and requests

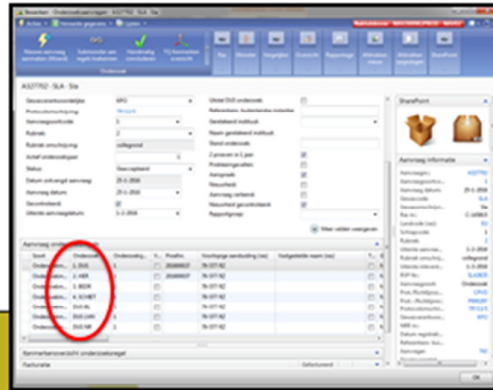
- ❑ **DUS applications**
 - National list
 - Dutch Plant Breeders' Rights
 - Community Plant Breeders' Rights
 - Bilateral applications
 - Conservation varieties
- ❑ **Inspection requests**
 - Maintenance control
 - Post control
 - Authorisation for marketing of not yet listed varieties
- ❑ **Service requests (varietal trueness and/or purity)**
- ❑ **Resistance requests**
- ❑ **Administrative requests (declarations, denomination tests etc.)**

1. Applications and requests

- Each application and request requires one or more actions (tests or examinations)
- There are different types of examinations
- They are linked automatically to the DUS applications or other requests through defaults when entering the requested information
- Samples and involved parties also created/inscribed automatically using an inscription wizard

Examination types:

- DUS
- Specific trials (bolting)
- Breeders' co-trial
- Resistance tests
- Inspection



2. Species

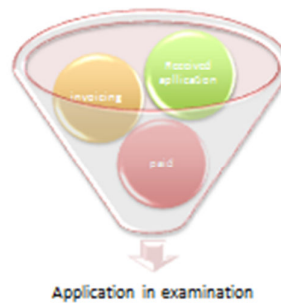
- Nav contains more than 6000 species.
- For each species various characteristics like UPOV code, taxonomical information (family, genus, species etc.), Common names in different languages, synonyms, sector (Veg, Agr, Orn, Fruit, Others), crop expert, Financial crop group, etc. are included.
- Varieties are linked to species/crops.
- Protocols for DUS testing are linked to crops/species.

4. Status

- Each step in the process has a different status in Nav
For DUS applications e.g.:
 - New Application received Accepted
 - Trial started Prelim Report Follow-up trial started
 - Trials finished (not yet reported) Final report
 - Completed Refused Stopped
- ❑ Status for applications, samples and trials
- ❑ Each status triggers different steps and authorises for next steps (e.g. invoices)

5. Invoice(s)

- ❑ Varieties and trial database linked with financial department database
- ❑ Every type of application or request is linked to a specific invoice schema.
- ❑ By changing the status of an application or trial in Nav into a certain status, a notification is sent to the financial department to send out the invoice.
- ❑ Payment changes the status of an application automatically.
- ❑ DUS applications: after receipt the invoice is sent out, but DUS procedure will not start until the application has been paid.



6. Trials

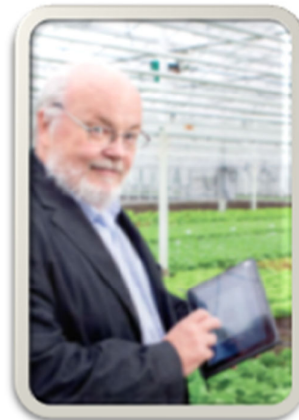
Trial management:

1. All applications and requests enrolled/entered in Nav.
2. Selection of similar varieties.
3. When all applications and requests are in Nav and all similar varieties are selected than the trial is prepared in Nav.
4. Choice to plan the trial using historical order of varieties (can be changed)
5. Invitations for visitors can be prepared.
6. Finishing a trial will generate invoices automatically.
7. Trial information shown on *myNaktuinbouw* (sowing date etc).



6. Trials

- Characteristics are observed in the field and scored in handhelds.
- Observed characteristics can be loaded from handheld into Nav.
- Also the results of the other examinations (e.g. resistances) can be found in Nav.
- Finishing a trial generates invoices automatically according to the type of request/application.



7. Samples

- Sample management through status (e.g. to request, received, discarded etc.)
- Sample information through whole system and printed in e.g. trial books and loaded in handhelds
- Request samples from the system
- Renewal of samples on date and/or quality
- Automatically status update after yearly cleaning action (discarded)



8. Maintenance register

- Shared by Inspection and Varieties department
- For vegetable varieties only (obligatory Maintenance control in vegetables; agricultural crops are by NAK)
- Automatic creation of entry at inscription of applications for listing
- 5 Yearly schedule for maintenance control of vegetable varieties
- Basis for control visits by inspectors to companies and check of samples of basic seed in trials on continued Varietal Trueness (Stability) and Uniformity



9. Reporting

- ❑ Nav has formats that are used to make interim reports and final reports.
- ❑ If a second period of testing is necessary a interim report about the first year of testing is made.



9. Reporting

Final report

While making the final reports, the notes scored in the various trials are shown to prepare the final note.

The screenshot shows a table with the following columns: 'Aanmaken na beschrijving', 'CPD nr.', 'SPD nr.', 'Kamer', 'Kenmerk', 'Egrees', 'Kenmerktype', and 'Egrees omschrijving'. The table contains 15 rows of data. Below the table, there is a section for 'Scores onder (vervangings)'. The table is annotated with red circles and arrows pointing to 'Trial 1' and 'Trial 2'.

| Aanmaken na beschrijving | CPD nr. | SPD nr. | Kamer | Kenmerk | Egrees | Kenmerktype | Egrees omschrijving |
|--------------------------|---------|---------|-------|----------------------------------|--------|-----------------------------|---------------------|
| ADN01 | 0.00 | 0.00 | AD01 | Voorts handzaam | 1 | | |
| ADN02 | 1.00 | 0.00 | AD02 | Kompleet uitlosgeschikt type | 1 | Elke zaak-energieke groepen | aanvang |
| ADN03 | 2.00 | 0.00 | AD03 | Plant grootje | 1 | | afgegrast |
| ADN04 | 3.00 | 0.00 | AD04 | Plant naar voren op de heuvel | 1 | Elke aflopende baan | niet van topograf |
| ADN05 | 4.00 | 0.00 | AD05 | Stangt uitlosgeschikt | 2 | | niet van topograf |
| ADN06 | 5.00 | 0.00 | AD06 | Stangt lengte van de intervallen | 2 | Elke afgegraste baan | juist |
| ADN07 | 6.00 | 0.00 | AD07 | Plant hoogte | 3 | Elke afgegraste baan | inhalen |
| ADN08 | 7.00 | 0.00 | AD08 | Bud houding | 3 | | halfhangend |
| ADN09 | 8.00 | 0.00 | AD09 | Bud lengte | 4 | | inhalen tot lang |
| ADN10 | 9.00 | 0.00 | AD10 | Bud breedte | 4 | | inhalen tot breed |
| ADN11 | 10.00 | 0.00 | AD11 | Bud type schijf | 2 | | afhaal |
| ADN12 | 11.00 | 0.00 | AD12 | Bud grootte vloeien | 3 | | inhalen |
| ADN13 | 12.00 | 0.00 | AD13 | Bud omhoog groeien | 3 | | inhalen |
| ADN14 | 13.00 | 0.00 | AD14 | Bud gans | 4 | | juist tot inhalen |
| ADN15 | 14.00 | 0.00 | AD15 | Bud behouding | 3 | | juist |

Scores onder (vervangings)

| CPD nr. | SPD nr. | Kamer | Onderszoek | Kenmerk | Egrees | Egrees omschrijving | Opmerking | Notulen... |
|---------|---------|-------|------------|---------|--------|---------------------|-----------|------------|
| 1.00 | 0.00 | 1-145 | AD02 | | | aanvang | ← Trial 1 | 450200 |
| 1.00 | 0.00 | 1-205 | AD05 | | | aanvang | ← Trial 2 | 450200 |
| 1.00 | 0.00 | 1-145 | AD02 | | | | | 450200 |

9. Reporting

- If the variety meets the DUS-requirements, Naktuinbouw creates a report, including the variety description in Nav. This report will be send to the applicant. After approval of the applicant the official date of listing/granting can be entered in Nav and Navision will automatically give a National Variety Register (NRR) number to the variety.
- If Plant Breeders' Right and/or Listing has been granted, it will be published in the National Gazette.



10. National Gazette and Notifications

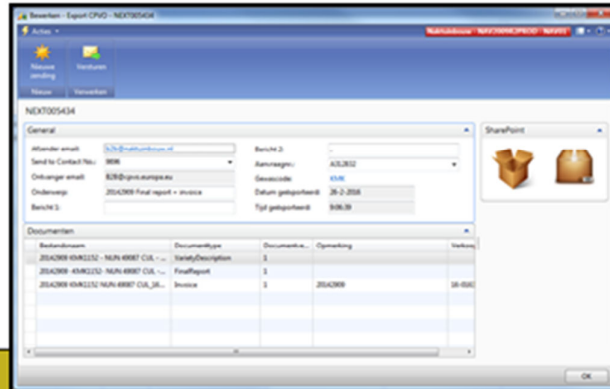
- Each month a list of changes is published in the National Gazette (new applications, listings, grantings, changes etc.).
- All lists can be generated directly from Nav.
- All modifications to the Dutch National Register are monthly notified to the European Commission and other EU Member States
- Monthly the changes of the Variety Database are exchanged with the CPVO Variety Finder. (CPVO communicates all changes with the UPOV PLUTO database)



11. Exchange

❑ Exchange with CPVO by Nextsend (B2B)

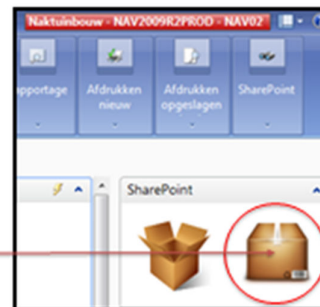
Data such as reports and invoices can be exchanged with the CPVO directly from Nav through exchange an platform. In the near future this is also possible with GEVES (on bilateral agreements)



12. Document management / Sharepoint

❑ In Document Management System Sharepoint you can find all the documents associated with applications and requests.

❑ Applicants can view all the documents that are placed in the open box at myNaktuinbouw.



13. myNaktuinbouw

- ❑ Special application of Sharepoint is the client portal *myNaktuinbouw*;
- ❑ Applicants can see status and information only of their own applications in *myNaktuinbouw* (linked to login).
- ❑ In order to use *myNaktuinbouw* a login and password is needed.

myNaktuinbouw Variety testing Help

myNaktuinbouw
Home

Recent applications

| Species | Breeder's reference | Denomination | Status | RuF number | Application date | Entrance date NRK | Authorisation date | Expected date final report | Application category |
|-------------------|---------------------|--------------|------------|------------|------------------|-------------------|--------------------|----------------------------|----------------------|
| Industrial Cherry | FD19C1005 | | In process | CO485 | 01 Mar 2016 | | | 01 Mar 2018 | Listing |
| Industrial Cherry | FD19C1005 | | In process | CO485 | 01 Mar 2016 | | | 01 Mar 2018 | National PSR |
| Industrial Cherry | FD19C2005 | | In process | CO486 | 01 Mar 2016 | | | 01 Mar 2018 | Listing |
| Industrial Cherry | FD19C2005 | | In process | CO486 | 01 Mar 2016 | | | 01 Mar 2018 | National PSR |
| Industrial Cherry | FD19C2007 | | In process | CO487 | 01 Mar 2016 | | | 01 Mar 2018 | Listing |

[Go to search page for applications](#)

13. myNaktuinbouw

- ❑ Various information of their applications and requests can be found, including status, involved parties and all linked documents in the open boxes.
- ❑ Information comes directly from Nav.
- ❑ *myNaktuinbouw* is also used by Naktuinbouw departments laboratory and inspection

myNaktuinbouw Variety testing Help

myNaktuinbouw - Variety testing
Overview applications

Search

RuF number:

Application date from:

Application date to:

Species:

Feed file:

Breeder's reference:

Expected date final report from:

Expected date final report to:

Application status: Active/under procedure
 Finalized
 Refused
 Withdrawn during procedure

Botanical name:

Denomination:

Application category:

Export to Excel

| Species | Breeder's reference | Denomination | Status | RuF number | Application date | Entrance date NRK | Authorisation date | Expected date final report | Application category |
|-------------------|---------------------|--------------|------------|------------|------------------|-------------------|--------------------|----------------------------|----------------------|
| Industrial Cherry | FD19C1005 | | In process | CO485 | 01 Mar 2016 | | | 01 Mar 2018 | Listing |



14. National Variety Register (NRR)

- ❑ NRR is freely accessible, no login or password is needed.
<https://nederlandsrassenregister.nl/>
- ❑ Everybody can see status and information of all varieties in the register.
- ❑ Various information of varieties can be found, including status, dates and relations such as title holders or maintainers.
- ❑ Information comes directly from Nav.


Raadvoorplantenrassen



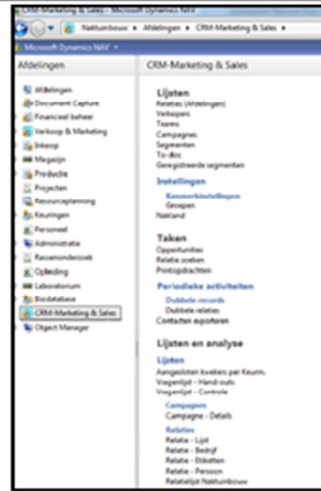
15. Authorisation

- ❑ In the European Union, for vegetable and agricultural varieties, it is also possible to sell seeds of not yet officially listed varieties through a special authorisation regulation according to Decision 2004/842/EC.
- ❑ Authorisation applications, grants and renewals for vegetable varieties are filed in Nav, and linked to the DUS applications for Listing.
- ❑ Vegetable varieties applied for authorisation are shown on the Naktuinbouw website.
http://www.naktuinbouw.nl/sites/naktuinbouw.eu/files/NetherlandsAuthorizationsonmarketingofvarieties_1.pdf
- ❑ Authorisation for vegetables is also shown on *myNaktuinbouw* on the authorisation tab.



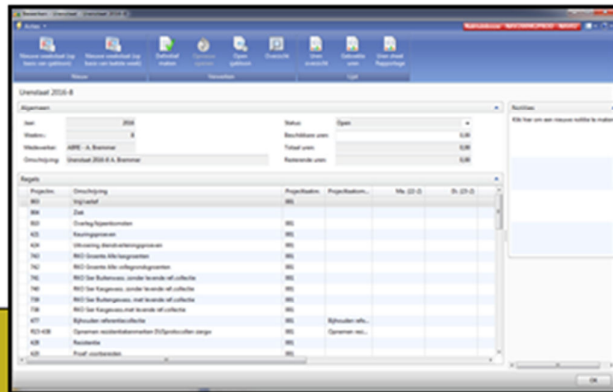
16. Customer Relation Management (CRM)

- ❑ All relevant data from persons and companies are included in Nav: names, telephone, email, addresses etc.
- ❑ The contact persons from the companies/ applicants can be found separately.
- ❑ Also the Naktuinbouw staff can be found in CRM.



17. Time registration

- ❑ All worked hours are registered in Nav per defined activity.
- ❑ A format with different activities can be found in Nav. each staff member has to specify how many hours they spent on each activity.
- ❑ Also hours worked on projects are registered in the timesheets in Nav.
- ❑ The project managers can see how many hours are spent on each project.
- ❑ All departments can see how many ours are spent on each process/task.



18. Wish List

1. XML based application module (in preparation through UPOV).
2. Extension of possibilities of *myNaktuinbouw* to other requests.
3. Management reporting tools based on information in Nav.



Questions?

