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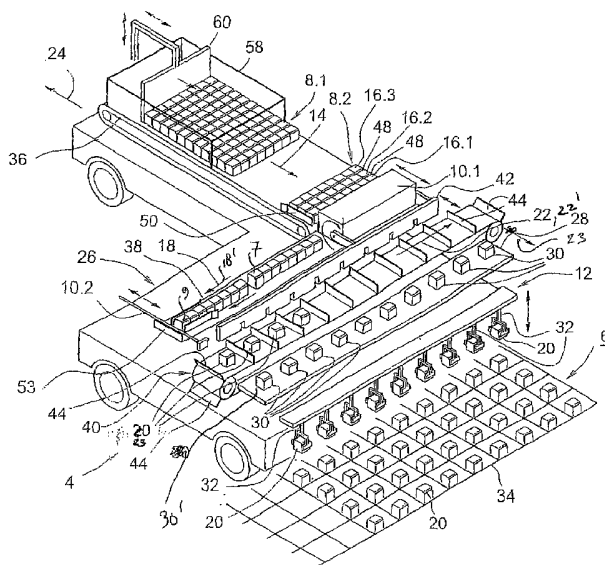
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(54) Title: FLEXIBLE PLANTING MACHINE FOR PLANTING PLANTS WHICH MAY OR MAY NOT HAVE GERMINATED



(57) Abstract: The invention relates to a planting machine (2) for planting germinated or ungerminated plants, comprising a transport system (4) for transporting to planting locations plants supplied in a sheet with plants to the planting machine (2), a singulating system (10) having a first singulator (10.1) and a second singulator (10.2) for singulating plants in the sheet with plants, and a planting system (12) for planting plants in the planting locations, the transport system (4) being arranged for transporting the sheet with plants in a first direction to the first singulator (10.1).



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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

Int. Application No

PCT/NL 03/00335

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 A01C11/02

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 A01C A01G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 307 827 A (TURUNEN LASSE) 29 December 1981 (1981-12-29) the whole document -----	1,42
A	US 4 289 080 A (PENLEY PERCY A) 15 September 1981 (1981-09-15) cited in the application column 13, line 4 - column 14, line 9; figures 1,2,10 -----	1,42
A	NL 7 806 949 A (ZWIGRO BV) 3 January 1980 (1980-01-03) the whole document -----	1
A	FR 2 801 168 A (REGERO SA) 25 May 2001 (2001-05-25) abstract; figures -----	1
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
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- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

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- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

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# INTERNATIONAL SEARCH REPORT

Int'l Application No  
PCT/NL 03/00335

**C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 911 631 A (BOULDIN E LLOYD ET AL) 15 June 1999 (1999-06-15) abstract; figures -----	42
A	EP 0 475 839 A (REGERO SA) 18 March 1992 (1992-03-18) the whole document -----	42
A	NL 7 713 803 A (ZWIGRO BV) 15 June 1979 (1979-06-15) -----	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/NL 03/00335

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-42

Planting machine comprising a transport system, a singulating system and a planting system, the singulating system comprising a first singulator, for splitting sheets with plants into rows with plants, and a second singulator, for splitting rows with plants into singulated plants, and the transport system being arranged for transporting the sheets with plants to the 1st singulator, the rows with plants from the 1st singulator to the 2nd singulator, and finally the singulated plants from the 2nd singulator to the deposit locations.

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2. claims: 43, 44

Planting machine comprising a transport system, a singulating system and a planting system, the planting system comprising a plurality of grippers, with distance-setting means for changing the mutual distances between the grippers.

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/NL 03/00335

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
US 4307827	A	29-12-1981	FI 790355 A BR 8000646 A CA 1113309 A1 DE 3003164 A1 FR 2447671 A1 SE 439571 B SE 8000813 A	03-08-1980 14-10-1980 01-12-1981 07-08-1980 29-08-1980 24-06-1985 03-08-1980
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US 5911631	A	15-06-1999	US 5860372 A	19-01-1999
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