



Index seminarum

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INDEX SEMINUM



University Botanic Gardens
Utrecht,
The Netherlands

No. 34 - 1992

UNIVERSITEITSBIBLIOTHEEK UTRECHT



4216 3828

University Botanic Gardens

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The Netherlands

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General Director

Arie Oudijk,
Deputy Director

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Secretary

Curators' Department:

Jan Tolsma,
Curator

Bert J.W. van den Wollenberg, M.Sc.,
Curator

Educational Department:

Jaap Vos, M.Sc.,
Education officer

The gardens are located at:

- Utrecht: Fort Hoofddijk (University center)
- Doorn: Von Gimborn Arboretum

Notes on ordering:

Correspondents are asked to use the order-form provided, and send it to the address mentioned upon it. Furthermore, they should check with their own authorities concerning import-regulations and include any necessary permits with their order.

Only requests reaching us before May 1, 1993 will be handled in sequence of entry. Order-forms which will reach us after that date will not be handled! Our Fax no. is .. 31 30 535177.

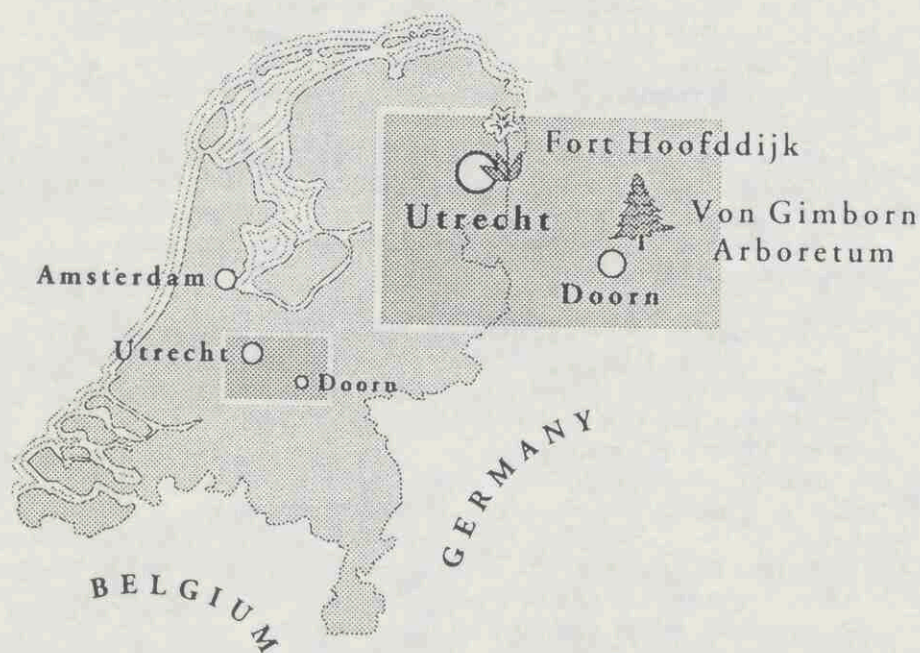
Situation and climate:

Geographical position of the Main Garden..52° 06' N : 5°11' E
Altitude..... 2 m above sea level

Mean daily minimum of the coldest month..... - 0,6°C
Mean daily maximum of the warmest month..... + 21,6°C

Highest temperature..... + 36,8°C *
Lowest temperature..... - 24,8°C *

Average rainfall..... 803 mm



* Monitored since 1849

Introduction

With the presentation of our Index Seminum 1992 we take the opportunity, as usual, to inform you on the latest developments concerning the Botanic Gardens of Utrecht University.

In april last year, we welcomed Arie Oudijk as a new member of staff. He will fulfil the vacancy of Deputy Director. Within the Educational Department, Hanneke Potters has left us to take up teaching in Biology.

In may of this year, a thorough change in lay-out of the public entrance was completed, including an Information Desk and a Garden Shop. Several volunteers were prepared for a task as host, who are now running the Garden Shop and Information Desk at the entrance of Fort Hoofddijk, our Main Garden. Many activities have been started in Education: two different courses were organized for training guides (conducting tours through the Gardens), most of which are students in Biology. All the activities with volunteers and students are very rewarding and we are very pleased with such generous support.

Another feature was a drastic change in opening hours: for the first time in their history, Utrecht Botanic Gardens are now open to the general public seven days of the week in the period april - october. For the time being, during the winter period, the Main Garden remains closed in the weekend.

In november 1992 we published a completely updated edition of our Catalogue of Plant Collections. The Biology Faculty of Utrecht University enabled this by generous financial support. New in this Catalogue is the supply of the WCMC (World Conservation Monitoring Centre) - codes. By sending our records in electronic (ITF-)form to the Botanic Gardens Conservation International, our database was screened on rare and endangered plants.

The Catalogue has been sent to many Botanic Gardens and Institutions. Curators who are interested, but have not received this Catalogue yet, are invited to send their request to us.

In november and december, one of the curators, Mr. Van den Wollenberg, was enabled to participate in a 5-week collecting trip

to Guyana, led by Mrs. A.R.A. Görts of the Institute for Systematic Botany of Utrecht University. The financial support for this was again supplied by the Biology faculty. On this trip, seeds of about 180 plant species were collected, and some of these have been included in this Index Seminum.

Vijko P.A. Lukkien, M.Sc.,
General Director.

Utrecht Botanic Gardens are developing specializations on the following groups and taxa:

-Flora of the Neotropics: Flora of the Guianas, with special emphasis on:

Gesneriaceae Zingiberaceae
Orchidaceae

-Annonaceae (Research Collection)

-Conifers (esp. *Tsuga*)

-Broad-leaved hardy trees and shrubs:

Aceraceae Betulaceae Ericaceae
Euonymus Laburnum Magnolia
Oleaceae (esp.: *Fraxinus* and *Syringa*)

-Alpines

-Crassulaceae (Research Collection)

-selected woodland plants (*Arisaema*, *Arisarum* & *Trillium*)

-Penstemon

-Lecanopteris

These specializations are given extra attention regarding verification, nomenclature, wild source material, etc.

Note: In view of the evaluation of the policy regarding Garden Specializations, which is still in progress, this survey will undergo some changes in the near future.

We are especially interested in material from natural sources of the groups and taxa mentioned above. We have a cooperation with gardens with identical specializations. If you are interested, please contact us and we will provide additional information.



Fig. 1: *Pleuropetalum darwinii* J.D.Hook. (Amaranth.)

Aceraceae

1. G I 00ZG00986 *Acer cappadocicum* Gled. subsp. *lobelii* (Ten.) De Jong
2. G I 00ZG00968 *Acer maximowiczianum* Miq.
3. G I 00ZG00997 *Acer micranthum* Sieb. & Zucc.
4. G I 61RD00559 *Acer tataricum* L. subsp. *tataricum*

Agavaceae

5. G I 73GR00695 *Phormium tenax* J.R. & G.Forst.

Amaranthaceae

6. S I 74GR00319 *Pleuropetalum darwinii* J.D.Hook. [HVDW 178]. Galapagos Islands.

Annonaceae

7. S S 83GR00360 *Annona glabra* L. [STOLZE s.n.]. USA, Florida, Sebastian River, 3 Km. W. of Wabasso.

Apiaceae

8. G I 90ZE00290 *Ammi majus* L.

Aquifoliaceae

9. G I 61RD00653 *Ilex pedunculosa* Miq. var. *pedunculosa*

Araceae

10. G I 68GR00913 *Nephtytis afzelii* Schott

Asclepiadaceae

11. G I 80RD00057 *Periploca sepium* Bunge

Asteraceae

12. S I 92BL00068 *Ageratum conyzoides* L. [WOLB 91-040]. Sikkim, Yaksum, Alt.: 1750 m
13. G I 74ZS00027 *Aster divaricatus* L.
14. G I 66BL00162 *Aster porteri* A.Gray
15. S I 88GR00053 *Chaptalia ignota* Burkart Argentina, Iquazu, Las Orquideas.

Brassicaceae

16. G I 69BL00165 *Alyssum murale* Waldst. & Kit.

Bromeliaceae

17. G I 68GR00110 *Aechmea bracteata* (Sw.) Griseb.
18. G I 75GR00042 *Puya mirabilis* (Mez) L.B.Sm.

Caesalpiniaceae

19. E I 92GR01387 *Caesalpinia bonduc* (L.) Roxb. [JJDG 11708]. Guyana, Abary Region, along Atlantic Ocean.
20. G I 60GR00164 *Cercis siliquastrum* L.

Campanulaceae

21. S I 90BL00367 *Campanula sabatia* De Not. Italia, Altopiano delle Manie (SV); coll.: 88-08-03, Alt.: 300m.

Cannaceae

22. S S 89GR00010 *Canna indica* L. [WOLB 88-001].
Nepal, near village Phalenksangu,
along Annapurna Trail on steep slope
to river, Alt.: 700 m.
23. S S 76GR00106 *Canna paniculata* Ruiz & Pav.
[PLKENN 5700]. Peru, dept. Huanu-
co, Puente Durand, Alt.: 1000 m.
24. S I 80GR00287 *Canna tuerckheimii* Kraenzl.
[MAAS 4796]. Ecuador, Alluriquin
area, between Sto. Domingo de los
Colorados and Quito, mountain
forest, Alt.: 850 m.

Capparaceae

25. G I 91GR01779 *Cleome gigantea* L.

Caryophyllaceae

26. G I 83BL00090 *Dianthus knappii* (Pant.) Aschers. &
Kantiz ex Borb.

Celastraceae

27. S I 77RD00142 *Tripterygium regelii* Sprague &
Takeda Korea Sorok National Park.

Cneoraceae

28. G I 75GR00134 *Cneorum tricocon* L.

Cyclanthaceae

29. G I 68GR00859 *Carludovica palmata* Ruiz & Pav.



Fig. 2: *Curatella americana* L. (Dilleni.)

Dilleniaceae

30. E I 92GR01551 *Curatella americana* L. [GOERTS s.n.]. Guyana, S.Rupununi, between Dadanawa & Lethem.

Ericaceae

31. G I 00ZG00034 *Kalmia angustifolia* L.
32. G I 00ZG01222 *Kalmia latifolia* L.
33. G I 68RD00023 *Leucothoe walteri* (Willd.) Melvin
34. G I 00ZG00037 *Pieris floribunda* (Pursh ex Sims) Benth. & J.D.Hook.
35. G I 00ZG00097 *Rhododendron canadense* (L.) Torr.
36. G I 00ZG01146 *Zenobia pulverulenta* (Bartr. ex Willd.) C.Pollard

Euphorbiaceae

37. G I 78GR00256 *Phyllanthus juglandifolius* Willd.

Fabaceae

38. E I 92GR01382 *Canavalia maritima* (Aubl.) Thou. [GOERTS 206]. Guyana, Hope Beach, along Atlantic Ocean.
39. G I 84RD00451 *Chamaecytisus supinus* (L.) Link
40. S I 72ZE02110 *Lathyrus clymenum* L. Mediterranean.
41. S I 71ZE00834 *Lathyrus odoratus* L. Italy, Sicily.
42. G I 79ZE00331 *Ornithopus sativus* Brot. subsp. *sativus*
43. G I 56ZE02112 *Tetragonolobus purpureus* Moench

Fumariaceae

44. G I 54ZE02436 *Corydalis sempervirens* (L.) Pers.

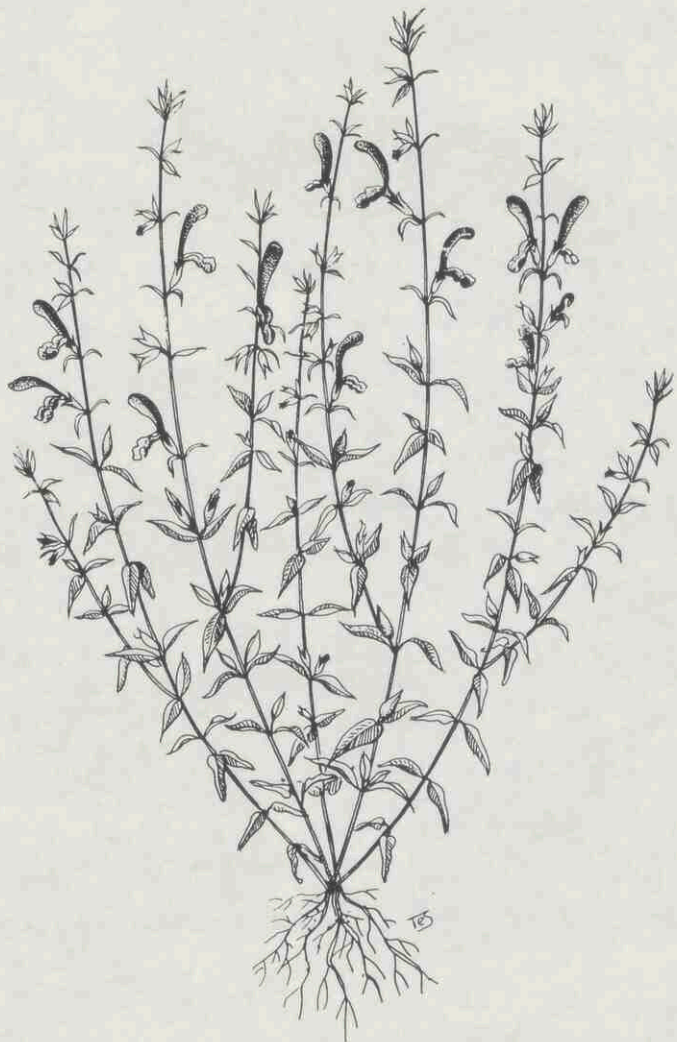


Fig. 3: *Salvia patens* Cav. (Lam.)

Gentianaceae

45. S I 57ZE00818 *Centaurium erythraea* Rafn subsp.
erythraea Czechoslovakia, S. Bohe-
mia, Sobeolav Alt.: 500 m
46. G I 65BL00002 *Gentiana asclepiadea* L.
47. G I 85BL00235 *Gentiana verna* L. subsp. *tergestina*
(G.Beck) Hayek

Geraniaceae

48. G I 61ZE00881 *Erodium cicutarium* (L.) L'Herit. ex
Ait. subsp. *cutarium*

Gesneriaceae

49. G I 65BL00453 *Ramonda myconi* (L.) Rchb.

Iridaceae

50. G I 77BL00409 *Iris magnifica* Vved.
51. G V 68GR00728 *Lapeirousia laxa* (Thunb.) N.E.Br.
52. G I 91GR00557 *xPardanca norrisii* L.Lenz

Lamiaceae

53. G I 79ZE00338 *Ocimum basilicum* L.
54. G I 65ZE00307 *Salvia patens* Cav.
55. S I 84GR00273 *Scutellaria speciosa* Epling [MAAS
5962]. Peru, Dept. San Martin, road
Tarapoto - Juanjui, km 25, dry
forest, collected from type location.
56. G I 66BL00015 *Teucrium arduini* L.

Liliaceae

57. S I 80GR00248 *Bomarea edulis* (Tussac) Herb.
[L&G455] Suriname, Kabelebo area,
along Barieba Creek.
58. G I 65BL00271 *Veratrum nigrum* L.

Lythraceae

59. U I 87ZE01477 *Cuphea procumbens* Ortega

Magnoliaceae

60. G I 00ZG00065 *Liriodendron tulipifera* L.
61. G I 00ZG01142 *Magnolia hypoleuca* Sieb. & Zucc.
62. G I 00ZG00209 *Magnolia tripetala* (L.) L.
63. G I 00ZG01144 *Magnolia virginiana* L.

Malvaceae

64. G I 63ZE00846 *Anoda cristata* (L.) Schlechtend.
65. G I 69GR00169 *Gossypium arboreum* L.
66. S I 80ZS00010 *Malva moschata* L. France (Doubs),
Chaffois, along the road, limestone,
Alt.: 850 m
67. S I 83ZE00353 *Malva neglecta* Wallr. Germany,
Kreiss Oschersleben, Wulferstedt.
68. S I 67GR00037 *Malvastrum coromandelianum* (L.)
Garcke [JCL s.n.]. Brazil.
69. G I 68GR01510 *Pavonia praemorsa* (L.f.) Cav.
70. G I 73ZS00033 *Sidalcea neomexicana* A.Gray var.
parviflora (Greene) Roush
71. E I 92GR01495 *Urena lobata* L. [GOERTS 455].
Guyana, Santa Mission area, Aratak
Mission.

Mimosaceae

72. G I 68GR00723 *Acacia farnesiana* (L.) Willd.

Myricaceae

73. G I 87BL00481 *Myrica gale* L. var. *tomentosa* C.DC.

Myrtaceae

74. S I 81GR00017 *Psidium cattleianum* Sabine [JCL s.n.]. Brazil, Rio Grande do Sul, campos.
75. G I 75GR00144 *Syzygium paniculatum* Banks ex Gaertn.

Onagraceae

76. S S 80GR00318 *Fuchsia paniculata* Lindl. [MAAS 4985]. Panama, Chiriqui Mt. wood near Guadeloupe, 2 km N. of Cerro Punta, coll. 80-10-21 Alt.: 1800 m.
77. G I 53ZE00879 *Godetia purpurea* (Curt.) G.Don
78. G I 90GR00304 *Ludwigia octovalvis* (Jacq.) Raven subsp. *octovalvis*

Papaveraceae

79. G I 64BL00209 *Meconopsis betonicifolia* Franch.

Phytolaccaceae

80. G I 69GR00291 *Hillieria latifolia* (Lam.) H.Walt.
81. G I 72ZS00029 *Phytolacca clavigera* W.W.Sm.
82. G I 68GR00888 *Rivina humilis* L. var. *humilis*

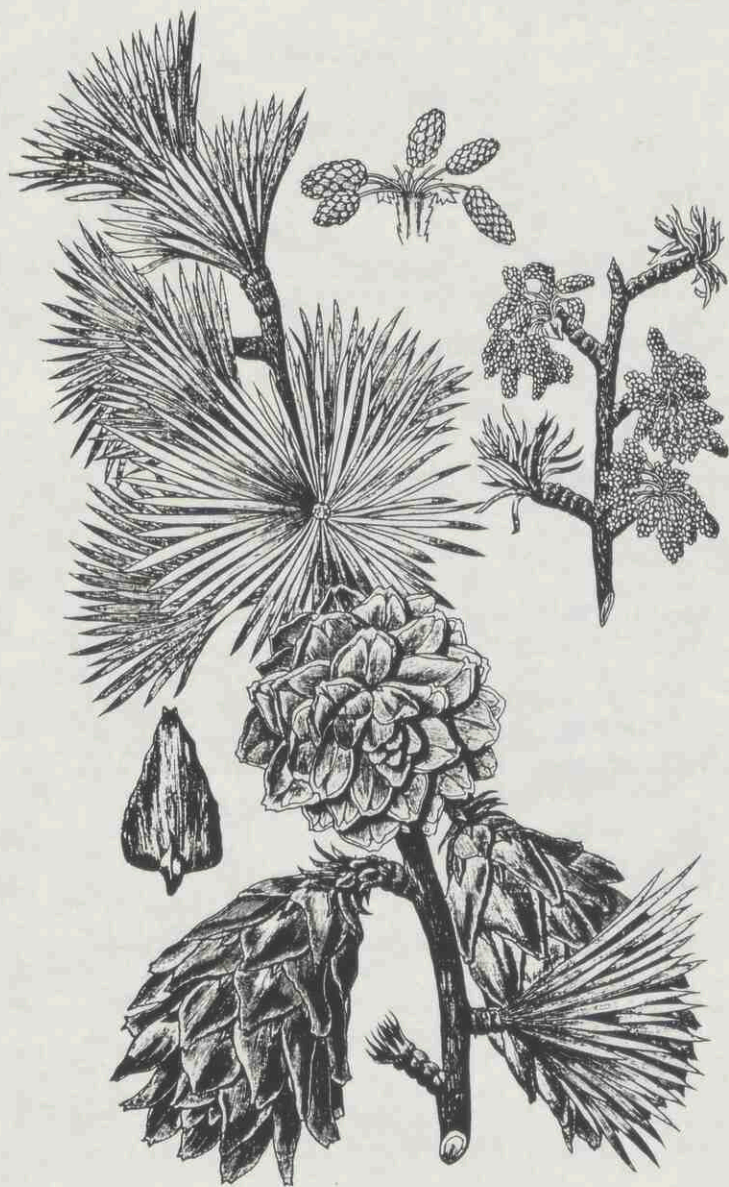


Fig. 4: *Pseudolarix amabilis* (A.Nels.) Rehd. (Pinac.)

Pinaceae

83. G I 00ZG00915 *Pseudolarix amabilis* (A.Nels.) Rehd.

Plumbaginaceae

84. G I 75ZE00620 *Psylliostachys suvorovii* (Regel)
Roshk.

Ranunculaceae

85. G I 75ZE00311 *Adonis aestivalis* L.

Rosaceae

86. S I 78ZS00010 *Filipendula kamtschatica* (Pall.)
Maxim. USSR, Sakhalin, Juzhno-
sachalinsk.
87. G I 71RD00024 *Spiraea japonica* L.f. var. *fortunei*
(Planch.) Rehd.

Rubiaceae

88. G I 90BL00022 *Asperula cynanchica* L.
89. G I 71ZE00303 *Asperula orientalis* Boiss. & Hohen.
90. S I 87ZS00024 *Rubia tinctorum* L. France, Dept.
Gard, Aramon

Rutaceae

91. G I 72RD00278 *Zanthoxylum simulans* Hance

Saxifragaceae

92. G I 75ZS00003 *Astilbe japonica* (C.Morr. & Decne.)
A.Gray var. *japonica*

Scrophulariaceae

93. G I 55ZE00896 *Calceolaria tripartita* Ruiz & Pav.
94. S I 86BL00553 *Penstemon heterophyllus* Lindl.
[WROD s.n.]. USA, California, Lake
Co., near Middletown, S.facing
roadcut, rocky soil, Alt.: 400 m.
95. G I 86BL00144 *Penstemon serrulatus* Menz. ex
J.E.Sm.
96. G I 66BL00018 *Wulfenia carinthiaca* Jacq.

Solanaceae

97. S I 66GR01770 *Cestrum calycinum* Willd. [JCL
1738]. Brazil.

Sterculiaceae

98. G I 87GR00028 *Abroma augusta* (L.) L.f.
99. G I 79GR00002 *Firmiana simplex* (L.) W.F.Wight

Styracaceae

100. G I 64RD00305 *Halesia carolina* L. var. *carolina*

Symplocaceae

101. G I 00ZG00909 *Symplocos paniculata* (Thunb.) Miq.

Taxodiaceae

102. G I 00ZG01862 *Sciadopitys verticillata* (Thunb.) Sieb. & Zucc.

Tovariaceae

103. G I 88GR00234 *Tovaria pendula* Ruiz & Pav.

Valerianaceae

104. G I 62ZE02127 *Centranthus calcitrapae* (L.) Dufresne
subsp. *calcitrapae*
105. G I 71ZE01430 *Centranthus macrosiphon* Boiss.
106. G I 66BL00455 *Patrinia gibbosa* Maxim.

Verbenaceae

107. G I 76GR00299 *Clerodendrum speciosissimum* Van
Geert
108. G I 72ZE02197 *Verbena rigida* Spreng.

Zingiberaceae

109. S S 68GR00198 *Alpinia pterocalyx* K.Schum.
[SLEUM 0016]. Indonesia, New
Guinea, Mt. Nettoti Kebar Valley,
coll. 1968.
110. G S 89GR00057 *Globba winitii* C.H.Wright (Bulbils)

Verification:

The seeds in this list have been taken from verified plants and only if we were reasonably sure that cross-pollination with related species would be unlikely.

Explanation of provenance codes:

- E= Seeds from natural source; all collected november 1992.
S= Seeds derived from a plant in cultivation but from known natural source (not necessarily F1 generation).
G= Seeds from a plant from other Botanical Garden or Institute; not from known natural source.
U= Seeds from unknown origin, possibly wild source.

Explanation of abbreviated collector-names:

GOERTS	A.R.A. Görts et al.
HVDW	H. v.d. Werff
JCL	J.C. Lindeman
MAAS	P.J.M. Maas
PLKENN	T. Plowman & H. Kennedy
SLEUM	H.O. Sleumer
STOLZE	R.G. Stolze
WOLB	L.J.W. van den Wollenberg, Curator
WROD	W. Roderick

Sources of illustrations used:

- Fig. 1: T. Schipper, Utrecht University.
Fig. 2: A.M.W.Mennega: Surinaamse wandelflora, part 1. STINASU, Paramaribo, 1976.
Fig. 3: T. Schipper, Utrecht University.
Fig. 4: L.Beissner: Handbuch der Nadelholzkunde. Verlagsbuchhandlung Paul Parey, Berlin 1909.

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial statements. This includes not only sales and purchases but also expenses and income. The document further explains that proper record-keeping is essential for identifying trends, managing cash flow, and complying with tax regulations.

In addition, the document highlights the need for regular reconciliation of accounts. By comparing the company's internal records with bank statements and other external sources, discrepancies can be identified and corrected promptly. This process helps to prevent errors from accumulating and ensures that the financial data remains reliable.

The second part of the document focuses on budgeting and financial forecasting. It provides a detailed guide on how to create a realistic budget based on historical data and market conditions. The document stresses that a well-defined budget is crucial for setting financial goals, allocating resources effectively, and monitoring performance against expectations. It also discusses various forecasting techniques and the importance of reviewing and adjusting the budget as needed.

Finally, the document addresses the topic of financial reporting. It outlines the key components of a comprehensive financial report, including the balance sheet, income statement, and cash flow statement. The document provides clear instructions on how to prepare these reports and how to interpret the results. It also discusses the importance of transparency and accountability in financial reporting, particularly when dealing with stakeholders and regulatory bodies.

