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# BIBLIOGRAFI HASIL PENELITIAN PERTANIAN KOMODITAS KARET



**PUSAT PERPUSTAKAAN DAN PENYEBARAN TEKNOLOGI PERTANIAN**  
Badan Penelitian dan Pengembangan Pertanian  
Departemen Pertanian  
2009

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Kepala Pusat,

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## BIBLIOGRAFI 2004

### AGRICOLA

1. Characterization of branching in two *Hevea brasiliensis* clones/  
Cilas, C ...[et al.]  
*Journal of Experimental Botany*. 2004 May; 55(399): p.1045-1051. 0022-0957  
**Keywords: Hevea brasiliensis; Branchus; Clones.**
2. Cleaving of S-mandelonitrile catalyzed by S-hydroxynitrile lyase from *Hevea brasiliensis* a kinetic investigation based on the rate curve method/Yeow,-Y.L ...[et.al.]  
*Journal of Biotechnology*. 2004 July 1, v. 111, no. 1 p. 31-39. ISSN: 0168-1656  
**Keywords: Hevea brasiliensis; Enzyme activity; Enzyme Kinetics; Enantiomers.**
3. Clonal variation and correlation of seed characters in *Hevea brasiliensis* Muell. Arg./Omokhafa, K.O.; Alike, J.E.  
*Industrial Crops and Products*. 2004 Mar., v. 19, no. 2 p. 175-184. ISSN: 0926-6690  
**Keywords: Hevea brasiliensis; Clones; Rubber seed oil; Seeds; Seed anatomy; Height; Weight; Volume; Clonal variation; Phenotypic variation; Genetic variance; Multiple trait selection; Selection criteria; Genetic improvement; Correlation: Equations; Nigeria.**
4. Depolymerization of beta-chitin to mono- and disaccharides by the serum fraction from the para rubber tree, *Hevea brasiliensis*/Klaikherd, A ...[et al.]  
*Carbohydrate Research*. 2004 Dec. 6, v. 339, no. 17 p. 2799-2804.  
**Keywords: Hevea brasiliensis; Depolymerization; Monosaccharides; Disachandes; Serum**



5. Growth performance in rubber (*Hevea brasiliensis*) clones related to xylem hydraulic efficiency/Sangsing, K ...[et al.]  
*Canadian Journal Of Botany = Revue Canadienne de Botanique*. 2004 July, v. 82, no. 7 p. 886-891.  
**Keywords: Hevea brasiliensis; Clones; Growth performance; Xylem**
  
6. Identification of differentially expressed cDNA sequences and histological characteristics of *Hevea brasiliensis* calli in relation to their embryogenic and regenerative capacities/Charbit, E ...[et al.]  
*Plant Cell Reports*. 2004 Mar., v. 22, no. 8 p. 539-548. ISSN: 0721-7714  
**Keywords: Hevea brasiliensis; Callus culture; In vitro regeneration; Somatic embryos; Somatic embryogenesis; Complementary DNA; Genetic markers; Sequence analysis; Gene expression; Histology; Plant anatomy; Nucleotide sequences**
  
7. Identification, cloning and sequence analysis of a dwarf genome-specific RAPD marker in rubber tree [*Hevea brasiliensis* (Muell.) Arg.]/Venkatachalam ...[et al.]  
*Plant Cell Reports*. 2004 Nov., v. 23, no. 5 p. 327-332.  
**Keywords: Hevea brasiliensis; RAPD; Cloning; Sequence analysis; Genome; Gene marker**
  
8. Impact of climatic conditions and tapping time on the yield of rubber (*Hevea brasiliensis*) in mid-western Nigeria/ Odjugo, AOP; Ikhile, CI  
*Tropical Agriculture*. 2004 Jan; 81(1): p. 7-10. 0041-3216  
**Keywords: Hevea brasiliensis; Rubber; Crop production; Crop yield; Temporal variation; Tree tapping; Climatic factors; Temperature; Rain; Nigeria**

9. Improving the spatial arrangement of planting rubber (*Hevea brasiliensis* Muell. Arg.) for long-term intercropping/Rodrigo, V.H.L.; Silva, T.U.K.; Munasinghe, E.S.  
*Field Crops Research*. 2004 Oct. 8, v. 89, issue 2-3 p. 327-335.  
**Keywords: Hevea brasiliensis; Spatial arrangement; Intercropping**
10. Natural rubber, *Hevea brasiliensis* (Willd. ex A. Juss.) Mull. Arg., germplasm collection in the Amazon basin, Brazil: a retrospective/ Onokpise, O.U.  
*Economic Botany*. 2004 Winter, v. 58, no. 4 p. 544-555.  
**Keywords: Hevea brasiliensis; Germplasm collection; Brazil**
11. Regulation of the expression of 3-hydroxy-3-methylglutaryl-CoA synthase gene in *Hevea brasiliensis* (B.H.K.) Mull. Arg./ Suwanmanee, P....[et.al.]  
*Plant Science Shannon, Ireland*. 2004 Feb., v. 166, no. 2 p. 531-537. ISSN: 0168-9452  
**Keywords: Hevea brasiliensis; Latex; Plant proteins; Acid thiol ligases; Messenger RNA; Gene expression regulation; Diurnal variation; Enzyme activity; Ethephon.**
12. Rubber tree (*Hevea brasiliensis*) bark necrosis syndrome. II. First comprehensive report on causal stresses/Nandris, D. ...[et al.]  
*Plant Disease*. 2004 Sept., v. 88, no. 9 p. 1047  
**Keywords: Hevea brasiliensis; Bark necrosis syndrome; Physiological disease; Cyanide metabolism**

13. Rubber tree (*Hevea brasiliensis*) bark necrosis syndrome. III. A physiological disease linked to impaired cyanide metabolism/ Chrestin, H.. ...[et al.]  
*Plant Disease*. 2004 Sept., v. 88, no. 9 p. 1047.  
**Keywords: Hevea brasiliensis; Bark necrosis syndrome; Physiological disease; Cyanide metabolism**
14. Xylem embolism and stomatal regulation in two rubber clones (*Hevea brasiliensis* Muell. Arg.)/Sangsing,-K. ...[et.al.]  
*Trees Structure and Function*. 2004 Mar., v. 18, no. 2 p. 109-114.  
 ISSN: 0931-1890  
**Keywords: Hevea brasiliensis; Trees; Clones; Water stress; Xylem vessels plant; Diseases and disorders; Stems; Petioles; Branches; Stomatal conductance; Stomatal movement; Drought tolerance; Selection criteria; Dry environmental conditions; Xylem water potential; Plant water relations; Thailand.**

#### AGRIS

15. Growth and anatomical characteristics of coffee (*Coffea arabica* L.) and rubber (*Hevea brasiliensis* Muell. Arg.) trees cultivated in single and intercropped systems/Oliveira ...[et al.]  
*Ciencia e Agrotecnologia* (Brazil), v. 28(2) p. 352-359. Mar-Apr 2004. ISSN : 1413-7054  
**Keywords: Coffea arabica; Hevea brasiliensis; Growth; Multiple cropping; Leaf area**
16. Interaction between flowering pattern and latex yield in *Hevea brasiliensis* Muell. Arg./Omokhafa, K.O.  
*Crop Breeding and Applied Biotechnology* (Brazil), v. 4(3) p. 280-284. Sep 2004. ISSN : 1518-7853.  
**Keywords: Hevea brasiliensis; Latex; Flowering; Mathematical models**

17. Performance of rubber-tree (*Hevea brasiliensis* (Wild. ex. ADR. of Juss.) Muell. Arg.) related to physiologic and anatomical characters in Lavras, Minas Gerais./Mesquita, A.C. ...[et al.]  
*Lavras*, MG (Brazil). 2004. 151 p.  
**Keywords: Hevea brasiliensis; Rubber industry; Latex; Clones; Growth; Minas gerais**

## SCIENCEDIRECT

18. Clonal variation and correlation of seed characters in *Hevea brasiliensis* Muell. Arg./K. O. Omokhafa, J. E. Alike,  
*Industrial Crops and Products*, Volume 19, Issue 2, March 2004, p. 175-184, ISSN 0926-6690.  
**Keywords: Hevea; Seed characters; Clonal variation; Correlation; Hevea brasiliensis; HMG-CoA synthase 1; Natural rubber**
19. Improving the spatial arrangement of planting rubber (*Hevea brasiliensis* Muell. Arg.) for long-term intercropping/V. H. L. Rodrigo, T. U. K. Silva, E. S. Munasinghe  
*Field Crops Research*, Volume 89, Issues 2-3, 8 October 2004, p. 327-335, ISSN 0378-4290.  
**Keywords: Hevea; Plant spatial arrangements; Planting systems; Intercropping**
20. Regulation of the expression of 3-hydroxy-3-methylglutaryl-CoA synthase gene in *Hevea brasiliensis* (B.H.K.) Mull. Arg./Pluang Suwanmanee, Nualpun Sirinupong, Wallie Suvachittanont,  
*Plant Science*, Volume 166, Issue 2, February 2004, p. 531-537, ISSN 0168-9452.  
**Keywords: Hevea brasiliensis; Diurnal variation; Ethephon**

## TEEAL

21. Growth performance in rubber (*Hevea brasiliensis*) clones related to xylem hydraulic efficiency/Sangsing-K. ...[et al.]  
*Canadian Journal of Botany*, 2004, 82 (82), p. 886-891  
**Keywords: Hevea brasiliensis; Clones; Xylem; Growth performance**
22. Prediction models for estimating the area, volume, and age of rubber (*Hevea brasiliensis*) plantations in Malaysia using Landsat/Suratman, M.N. ...[et al.]  
*International Forestry Review*, 2004, 6 (6), p. 1-12, 76-77  
**Keywords: Hevea brasiliensis; Prediction models; Stand age landsat; Malaysia**
23. Rubber tree (*Hevea brasiliensis*) bark necrosis syndrome I: still no evidence of a biotic causal agent/Pellegrin-F. ...[et al.]  
*Plant Disease*, 2004, 88 (88), p. 10-46  
**Keywords: Hevea brasiliensis; Bark necrosis syndrome; Biotic causal agent**
24. Rubber tree (*Hevea brasiliensis*) bark necrosis syndrome II: first comprehensive report on causal stresses/Nandris-D. ...[et.al.]  
*Plant Disease*, 2004, 88 (88), p. 10-47  
**Keywords: Hevea brasiliensis; Bark necrosis syndrome**
25. Rubber tree (*Hevea brasiliensis*) bark necrosis syndrome III: a physiological disease linked to impaired cyanide metabolism / Chrestin-H. ...[et.al.]  
*Plant Disease*, 2004, 88 (88), p. 10-47  
**Keywords: Hevea brasiliensis; Bark necrosis syndrome; Physiological disease; Cyanide metabolism**

## TROPAG & RURAL

26. Biomass production and nutrient budgeting of *Hevea brasiliensis* in South India/Karthikakuttyamma, M ...[et.al.]  
*Indian Journal of Natural Rubber Research India*. 2004; 17(2): p. 108-114, ISSN: 0970-2431  
**Keywords:** Agroforestry; Bark; Biomass; Biomass production; Branches; Cropping systems; Ecosystems; Forest soils; Forest trees; Forests; Leaves; Magnesium; Nutrient balance; Nutrient uptake; Nutrients; Plantations; Rain forests; Roots; Soil; Soil fertility; Sustainability; Trees; Uptake
27. Clonal variation and correlation of seed characters in *Hevea brasiliensis* Muell. Arg/Omokhafa,-K-O; Alike,-J-E  
*Industrial Crops and Products Netherlands*. 2004; 19(2): p. 175-184. ISSN: 0926-6690  
**Keywords:** Characteristics; Clonal variation; Clones; Farmers; Genetic improvement; Genetic variation; Heritability; Phenotypes; Plant breeding; Seed characteristics; Seeds
28. Effect of judicious ethephon application on yield response of *Hevea brasiliensis* (Clone RRII 105) under 1/2s d/3 6d/7 tapping system/Rajagopal, R  
*Journal of Rubber Research Malaysia*. 2004; 7(2): p. 138-147. ISSN: 1511-1768  
**Keywords:** Clones; Effects; Ethephon; Latex; Tapping; Yield increases; Yields
29. Growth performance of *Hevea brasiliensis* clones in Dooars region of West Bengal/Gohain, T; Meti  
*Indian Journal of Natural Rubber Research India*. 2004; 17(2): p. 133-138. ISSN: 0970-2431  
**Keywords:** Clones; Crop production; Growth; Plantations; Productivity; Subtropics; Survival

30. Improving the spatial arrangement of planting rubber (*Hevea brasiliensis* Muell. Arg.) for long-term intercropping/  
Rodrigo, V.H.L; Silva, T.U.K; Munasinghe, E.S  
*Field Crops Research Netherlands*. 2004; 89(2-3): p. 327-335.  
ISSN: 0378-4290  
**Keywords: Biological competition; Canopy; Crop production; Effects; Growth; Income; Intercropping; International trade; Light penetration; Penetration; Plant density; Prices; Spacing; World markets; Yields**
31. Natural rubber, *Hevea brasiliensis* (Willd. ex A. Juss.) Mull. Arg., germplasm collection in the Amazon basin, Brazil: a retrospective/Onokpise, O.O  
*Economic Botany USA*. 2004; 58(4): p. 544-555 0013-0001  
**Keywords: Blight; Budwood; Disease resistance; Forest trees; Forests; Germplasm; Leaves; Plant diseases; Plant pathogens; Quarantine; Rain forests; Seedlings; Seeds; Surveys; Trees; Wild plants; Yields**
32. On the possibility of using ATP concentration in latex as an indicator of high yield in *Hevea brasiliensis*/Sreelatha, S; Simon, S.P; Jacob, J  
*Journal of Rubber Research Malaysia*. 2004; 7(1): p. 71-78  
1511-1768  
**Keywords: Adenosine; Adenosine triphosphatase; ADP; ATP; Biosynthesis; Chemical Composition; Clones; Latex; Selection criteria; Yields**

33. Panel management in rubber (*Hevea brasiliensis*) tapping and impact on yield, growth, and latex diagnosis/Lacote, R ...[et al.] *Journal of Rubber Research Malaysia*. 2004; 7(3): p. 199-217. ISSN: 1511-1768  
**Keywords: Clones; Increment; Latex; Monitoring; Physiology; Plant physiology; Tapping; Yields**
34. Prediction models for estimating the area, volume, and age of rubber (*Hevea brasiliensis*) plantations in Malaysia using Landsat TM data/Suratman, M.N  
*International Forestry Review-UK*. 2004; 6(1): p. 1-12. ISSN: 1465-5489 K  
**Keywords: Forests Inventories; Landsat; Measurement; Models; Plantations; Policy; Remote sensing; Stand age; Stand characteristics; Standard deviation; Statistical analysis; Thematic mapper; Volume determination; Wood products**



## BIBLIOGRAFI 2005

### AGRICOLA

35. Induction and differential of beta-1,3-glucanase mRNAs in tolerant and susceptible *Hevea* clones in response to infection by *Phytophthora meadii*/Thanseem, I.; Joseph, A. Thulaseedharan, A. *Tree Physiology*. 2005 Nov; 25(11): p. 1361-1368. ISSN: 0829-318X

**Keywords:** *Hevea brasiliensis*; Rubber; Fungal diseases of plants; *Phytophthora meadii*; Plant pathogenic fungi; Pathogenicity; Disease resistance; Beta glucanase; Enzyme activity; Messenger RNA; Gene expression; Clones; Genetic variation; India

36. Influence of neighboring vegetation in the distribution of mites in a rubber tree culture (*Hevea brasiliensis* Muell. Arg., *Euphorbiaceae*)/ Demite, P.R; Feres, R.J.F *Neotropical Entomology*. 2005 Sept-Oct; 34(5): p. 829-836. ISSN: 1519-566X

**Keywords:** Mites; Fauna; Species diversity; *Hevea brasiliensis*; Host plants; Understory; Pastures; Brazil

37. Microsatellite variability and its use in the characterization of cultivated clones of *Hevea brasiliensis*/Saha, T ...[etal.] *Plant Breeding=Zeitschrift-fur-Pflanzenzuchtung*. 2005 Feb; 124(1): p. 86-92. ISSN 0179-9541

**Keywords:** *Hevea brasiliensis*; Microsatellite repeats; Genetic markers; Cultivars; Cultivar identification; Clones; Loci; Alleles; Nucleotide sequences; Genes; Hydroxymethylglutaryl CoA reductase; Genetic polymorphism; Heterozygosity

38. Molecular cloning of a new cDNA and expression of 3-hydroxy-3-methylglutaryl-CoA synthase gene from *Hevea brasiliensis*/ Sirinupong, N ...[et al.]  
*Planta*. 2005 June; 221(4): p. 502-512. ISSN 0032-0935  
**Keywords:** *Hevea brasiliensis*; Plant proteins; Oxo acid lyases; Cloning (DNA); Complementary DNA; Sequence analysis; Gene expression; Enzyme activity; Protein secondary structure; Plant biochemistry; Plant genetics; Sequence alignment; Nucleotide sequences; Amino acid sequences
39. Relationship between latex yield of *Hevea brasiliensis* and antecedent environmental parameters/Raj, S ...[et al.]  
*International Journal of Biometeorology: Journal Of The International Society of Biometeorology*. 2005 Jan; 49(3): p. 189-196. ISSN: 0020-7128  
**Keywords:** *Hevea brasiliensis*; Clones; Latex; Crop yield; Environmental factors; Meteorological parameters; India
40. Rubber tree (*Hevea brasiliensis* Muell. Arg.) homologue of the LEAFY/Dornelas ...[et al.]  
*Journal of Experimental Botany*. 2005 Jul; 56(417): p. 1965-1974. ISSN 0022-0957  
**Keywords:** *Hevea brasiliensis*; Rubber; Specialty crops; Genes; Gene expression; Flower primordia; Male flowers; Female flowers; Flowering; Flowers; Inflorescences; In situ hybridization

41. Yielding potential of rubber (*Hevea brasiliensis*) in sub-optimal environments/Priyadarshan, PM ...[et al.]  
*Journal of Crop Improvement*. 2005; 14(1-2): p. 221-247. ISSN 1542-7528  
**Keywords:** **Hevea brasiliensis; Rubber; Specialty crops; Crop yield; Environmental factors; Plant adaptation; Genotype; Clones; Plant breeding; Literature reviews; Geographical variation; Air temperature; Wind speed; Evaporation; Meteorological data; Climatic factors**

### AGRIS

42. Development and use of the quebrachitol as a valuable botanical drug resource in latex from *Hevea brasiliensis* /Ao-Ning-jia  
*Journal of Yunnan Agricultural University (China)*. Yunnan Nongye Daxue Xuebao (China). (Aug 2005). v.20(4) p. 467-473. ISSN 1004-390X.  
**Keywords:** **Hevea brasiliensis; Rubber latex; Quebrachitol; Chirch-drug; Development**

### SCIENCEDIRECT

43. Post-germination changes in *Hevea brasiliensis* seeds proteome/Pooi-Fong Wong, Sazaly Abubakar.  
*Plant Science*, Volume 169, Issue 2, August 2005, p. 303-311, ISSN 0168-9452,  
**Keywords:** **Germination; Hevea brasiliensis; Proteome; Rubber; Seed**

## TEEAL

44. Aerial biomass in commercial rubber plantations (*Hevea brasiliensis* Mull. Arg.) in the State of Oaxaca, Mexico/RojoMartinez G.E....[et al.]  
*Agrociencia*, 2005, 39 (39), p. 449-456  
**Keywords: Biomass; Mathematical model; Models; Plantations**
45. Yielding potential of rubber (*Hevea brasiliensis*) in sub-optimal environments/ Priyadarshan.P.M. ...[et al.]  
*Journal of Crop Improvement*, 2005, 14 (14), p. 221-247  
**Keywords: Hevea brasiliensis; Clones; Environment**

## TROPAG & RURAL

46. Aerial biomass in commercial rubber plantations (*Hevea brasiliensis* Mull. Arg.) in the State of Oaxaca, Mexico/Rojo M, G.E ...[et al.]  
*Agrociencia Mexico*. 2005; 39(4): p. 449-456. ISSN: 1405-3195  
**Keywords: Biomass; Mathematical models; Models; Plantations**
47. Decay resistance of esterified and oligo-esterified rubberwood (*Hevea brasiliensis*)/ Nagaveni, H.C.; Vijayalakshmi, G; Chauhan, S.S  
*Journal of Tropical Forest Science Malaysia*. 2005; 17(4): p. 588-595. ISSN: 0128-1283  
**Keywords: Decay; Decay fungi; Dimensional stability; Effects; Fungal diseases; Plant diseases; Plant pathogens; Preservation; Resistance; Timbers; Wood; Wood preservation**

48. Girth growth of rubber (*Hevea brasiliensis*) trees during the immature phase/Chandrasekhar,T.R ... [et al.]  
*Journal of Tropical Forest Science Malaysia*. 2005; 17(3): p. 399-415 0128-1283  
**Keywords: Clones; Comparisons; Germplasm; Growth; Growth period; Growth rate; Humid tropics; Increment; Seasonal variation; Tropics**

## BIBLIOGRAFI 2006

### AGRICOLA

49. Diversity and seasonal occurrence of mites (Acari) in a rubber tree crop (*Hevea brasiliensis*, Muell. Arg.) in northwestern Sao Paulo, Brazil/Hernandes, F.A; Feres, R.J.F  
*Neotropical Entomology*. 2006 July-Aug; 35(4): p. 523-535. ISSN 1519-566X  
**Keywords: Mites; Predatory mites; Species diversity; Seasonal variation; Hevea brasiliensis; Brazil**
50. Effect of tapping activity on the dynamics of radial growth of *Hevea brasiliensis* trees/Silpi, U ...[et al.]  
*Tree Physiology*. 2006 Dec; 26(12): p. 1579-1587. ISSN 0829-318X  
**Keywords: Hevea brasiliensis; Forest trees; Stems rubber; Latex; Biosynthesis; Tree tapping; Tree growth; Seasonal variation; Thailand**
51. Efficient *Agrobacterium tumefaciens*-mediated transformation of embryogenic calli and regeneration of *Hevea brasiliensis* Mull Arg. Plants/Blanc,-G ...[et al.]  
*Plant Cell Reports*. 2006 Jan; 24(12): p. 724-733. ISSN 0721-7714  
**Keywords: Hevea brasiliensis; Transgenic plants; Genetic transformation; Callus; Somatic embryos; Agrobacterium tumefaciens; Genetic vectors; Micropropagation; Beta glucuronidase ; Enzyme activity; Plant genetics; Nucleotide sequences**

52. Isolation and characterization of iso inhibitors of the potato protease inhibitor I family from the latex of the rubber trees, *Hevea brasiliensis*/Sritanyarat, W ...[et al.]  
*Phytochemistry*. 2006 Aug; 67(15): p. 1644-1650. ISSN 0031-9422  
**Keywords:** *Hevea brasiliensis*; Euphorbiaceae; Latex; Proteinase inhibitors; Trypsin inhibitors; Plant proteins; Posttranslational modification; Glutathione; *Solanum tuberosum*; Amino acid sequences; Potatoes
53. Mites (Acari) of rubber trees (*Hevea brasiliensis* Muell. Arg., Euphorbiaceae) in Piracicaba, State of Sao Paulo, Brazil/ Vis, R.M.J de ...[et al.]  
*Neotropical Entomology*. 2006 Jan-Feb; 35(1): p. 112-120. ISSN 1519-566X  
**Keywords:** Prostigmata; Mesostigmata; Astigmata; Mites; Plant pests; Predatory mites; Species diversity; Population dynamics; *Hevea brasiliensis*; Brazil
54. Molecular cloning and characterization of the rubber elongation factor gene and its promoter sequence from rubber tree (*Hevea brasiliensis*): A gene involved in rubber biosynthesis/Priya, P. Venkatachalam, P.; Thulaseedharan, A.  
*Plant Science*. 2006 Oct; 171(4): p. 470-480. ISSN 0168-9452  
**Keywords:** *Hevea brasiliensis*; Rubber; Biosynthesis; Plant genetics; Plant proteins; Genes; Cloning (DNA); Complementary DNA; Sequence analysis; Promoter regions; Messenger RNA; Gene expression regulation; *Nicotiana tabacum*; Tobacco; *Arabidopsis thaliana*; Transgenic plants; Sequence alignment; Nucleotide sequences; Amino acid sequences

55. Statistical analysis of the spatio-temporal dynamics of rubber tree (*Hevea brasiliensis*) trunk phloem necrosis: no evidence of pathogen transmission/Peyrard, N ...[et al.]  
*Forest Pathology Journal=De Pathologie Forestiaere=Zeitschrift-feur-Forstpathologie*. 2006 Oct; 36(5): p. 360-371. ISSN 1437-4781  
**Keywords: Hevea brasiliensis; Treunk phloem; Necrosis; Pathogen transmission; Spatio-temporal dynamics; Statistical analysis**

### AGRIS

56. Effect of the seed coats on germination of rubber (*Hevea brasiliensis* Muell.) seeds/Moreno, F. ... [et al.]  
*Agronomia Colombiana*, v.24(2), p. 290-295. 2006. ISSN: 0120-9965.  
**Keywords: Scarification; Soaking; Permeability; Testa; Germination; Seed; Rubber; Hevea brasiliensis**
57. Photosynthetic behaviour and morphoanatomic characterization of leaves of different clones of rubber tree (*Hevea* spp.) in Lavras, MG./Miguel, A.A.  
*Lavras, MG (Brazil)*. 2006. 155 p.  
**Keywords: Hevea brasiliensis; Gum plants; Photosynthesis; Agronomic characters; Leaf area; Phenology; Minas gerais**



## SCIENCE DIRECT

58. Isolation and characterization of iso inhibitors of the potato protease inhibitor I family from the latex of the rubber trees, *Hevea brasiliensis* /Wannapa Sritanyarat ...[et al.]  
*Phytochemistry*, Volume 67, Issue 15, Rod Croteau Special Issue, Part 1, August 2006, p. 1644-1650, ISSN 0031-9422.  
**Keywords:** *Hevea brasiliensis*; *Euphorbiaceae*; **Proteinase iso inhibitors; Wounding; Plant defense**
59. Molecular cloning and characterization of the rubber elongation factor gene and its promoter sequence from rubber tree (*Hevea brasiliensis*): A gene involved in rubber biosynthesis/P. Priya, ...[et al.]  
*Plant Science*, Volume 171, Issue 4, October 2006, p. 470-480, ISSN 0168-9452,  
**Keywords:** *Hevea brasiliensis* (Hb); **Rubber elongation factor (REF) gene; Cloning; Promoter; Tobacco; Arabidopsis; Transformation**

## TEEAL

60. Isolation and characterization of iso inhibitors of the potato protease inhibitor I family from the latex of the rubber trees, *Hevea brasiliensis* /Sritanyarat W. ...[et al.]  
*Phytochemistry*, 2006, 67 (67), p. 1644-1650  
**Keywords:** *Hevea brasiliensis*; *Euphorbiaceae*; **Latex; Proteinase inhibitors; Trypsin inhibitors; Plant proteins; Posttranslational modification; Glutathione; Solanum tuberosum; Amino acid sequences; Potatoes**

61. Rapid method of determination of total N, P and K in a single digest of fresh leaf material of *Hevea*/Rao D.V.K.N. Thomas.J. Punnoose.K.I.  
*Journal of the Indian Society of Soil Science*, 2006, 54 (54), p. 277-282  
**Keywords: Hevea; Nitrogen; Phosphorus; Potassium; Leaves; Rapid method**
62. Sazonal production and latex characteristics in rubber tree (*Hevea brasiliensis* Muell. Arg.) clones in Lavras, State of Minas Gerais, Brazil / Mesquita-A-C. Oliveira-L-E-M. Cairo-P-A-R.  
*Bragantia*, 2006, 65 (65), p. 633-639  
**Keywords: Hevea brasiliensis; Rubber tree; Latex; Clones; Rubber production; Physical characteristic; Sazonal production; Brazil**

## TROPAG & RURAL

63. Diversity and seasonal occurrence of mites (Acari) in a rubber tree crop (*Hevea brasiliensis*, Muell. Arg.) in Northwestern Sao Paulo, Brazil/Hernandes, F.A; Feres, R.J.F  
*Neotropical Entomology*. 2006; 35(4): p. 523-535 ISSN 1519-566x  
**Keywords: Arthropod pests; Plant pests; Population density; Species richness**
64. Genetic variability for girth growth and rubber yield in *Hevea brasiliensis*/Goncalves, P.de.S ...[et.al.]  
*Scientia Agricola*. 2006; 63(3): p. 246-254 ISSN 0103-9016  
**Keywords: Clones; Crop yield; Environmental factors; Genetic correlation; Genetic gain; Genetic parameters; Genetic variation; Genotype environment interaction; Genotypes; Girth; Growth; Heritability; Latex tubes; Phenotypic correlation; Rubber; Selection; Selection pressure**

## BIBLIOGRAFI 2007

### AGRICOLA

65. Age of yield stabilization and its implications for optimising selection and shortening breeding cycle in rubber (*Hevea brasiliensis* Muell. Arg.)/Chandrasekhar, T.R. ...[et al.]  
*Euphytica*. 2007 July; 156(1-2): p. 67-75. ISSN 0014-2336  
**Keywords:** Rubber; Hevea brasiliensis; Selection; Skortening; Breeding cycle; Age; Yield stabilization
66. Chemical degradation of a Ferralsol (Oxisol) under intensive rubber (*Hevea brasiliensis*) farming in tropical China /Zhang, H ...[et al.]  
*Soil and Tillage Research*. 2007 Mar; 93(1): p. 109-116. ISSN 0167-1987  
**Keywords:** Soil; Oxisols; Hevea brasiliensis; Rubber; Tropics; Soil organic matter; Exchangeable cations; Soil microorganisms; Phosphorus; Nitrogen; Potassium; Soil acidification; Soil ph; Soil chemical properties; Soil quality; Soil degradation; Regression analysis; China
67. Cloning and expression of the gene encoding solanesyl diphosphate synthase from *Hevea brasiliensis*/Phatthiya, A ...[et al.]  
*Plant science*. 2007 Apr; 172(4): p. 824-831. ISSN 0168-9452  
**Keywords:** Hevea brasiliensis; Alkyl (aryl) transferases; Molecular cloning; Complementary DNA; Messenger RNA; Gene expression regulation; Recombinant fusion proteins; Enzyme activity; Nucleotide sequences; Aminoacid sequences

68. Effect of exogenous calcium on post-thaw growth recovery and subsequent plant regeneration of cryopreserved embryogenic calli of *Hevea brasiliensis* (Mcoll. Arg.)/Lardet, Ludovic ...[et al.]  
*Plant Cell Reports*. 2007 May; 26(5): p. 559-569. ISSN 0721-7714  
**Keywords: Hevea brasiliensis; Cryopreservation; Calcium**
69. Enhanced solvent extraction of polar lipids associated with rubber particles from *Hevea brasiliensis*./Bonfils, F ...[et al.]  
*Phytochemical Analysis*. 2007 Mar-Apr; 18(2): p. 103-108. ISSN 0958-0344  
**Keywords: Hevea brasiliensis; Euphorbiaceae; Rubber; Plant extracts; Chemical analysis; Quantitative analysis; Thin layer chromatography; Solvents ; Methanol ; Acetone; Chloroform; Lipids; Glycolipids; Phospholipids**
70. Genotypic variation in canopy photosynthesis, leaf gas exchange characteristics and their response to tapping in rubber (*Hevea brasiliensis*)/Gunasekara, HKLK; Costa, WAJM de; Nugawela, EA  
*Experimental Agriculture*. 2007 Apr; 43(2): p. 223-239. ISSN 0014-4797  
**Keywords: Hevea brasiliensis; Rubber; Genotypic variation; Canopy photosynthesis; Leaf gas exchange; Tapping**
71. Possibility of early commencement of tapping in rubber (*Hevea brasiliensis*) using different genotypes and tapping systems/ Gunasekara, HKLK ...[et.al.]  
*Experimental Agriculture*. 2007 Apr; 43(2): p. 201-221. ISSN: 0014-4797  
**Keywords: Hevea brasiliensis; Rubber; Tapping; Genotypes**

72. Rubber tree (*Hevea brasiliensis*) trunk phloem necrosis: aetiological investigations failed to confirm any biotic causal agent/Pellegrin,-F ...[et.al.]  
*Forest Pathology Journal De Pathologie Forestiere = Zeitschrift fur Forst pathologie.* 2007 Feb; 37(1): p. 9-21. 1437-4781  
**Keywords: Hevea brasiliensis; Rubber; Phloem necrosis; Biotic causal agent**

### AGRIS

73. Performance of new *Hevea* clones from IAC 400 series/ Goncalves,P.de-S  
*Scientia Agricola (Brazil)*, V. 64(3) p. 241-248. (May-Jun 2007).  
ISSN : 0103-9016.  
**Keywords: Hevea brasiliensis; Clones; Hybrids**
74. Photosynthetic behaviour during the leaf ontogeny of rubber tree clones (*Hevea brasiliensis* (Wild. ex. Adr. de Juss.) Muell. Arg.), in Lavras, MG/Miguel, A.A  
*Ciencia e Agrotecnologia (Brazil)*, v. 31(1) p. 91-97. (Jan-Feb 2007). ISSN : 1413-7054.  
**Keyword: Hevea brasiliensis; Photosynthesis ; Chlorophylls; Minas gerais**
75. Seasonal variation of Rubisco and sucrose synthesis and hydrolysis enzymes activities in rubber trees (*Hevea brasiliensis* (Willd ex. Adr. de Juss.) Muell.-Arg), in Lavras, MG/Cairo, P.A.R.  
*Lavras, MG (Brazil). UFLA.* 2007. 64 p.  
**Keywords: Hevea brasiliensis; Sucrose; Enzymes; Hydrolysis; Seasonal variation; Enzyme activity; Minas gerais**

76. Stock-scion interactions on growth and rubber yield of *Hevea brasiliensis*/Cardinal, A.B.B ...[et al.]  
*Scientia Agricola* (Brazil), V. 64(3) p. 235-240. ISSN : 0103-9016.  
**Keywords: Hevea brasiliensis; Rootstocks; Diallel analysis; Rubber; Grafting**

## SCIENCEDIRECT

77. Atributes of the bark cracking disorder in the rootstock of bud grafted rubber (*Hevea*) trees/ Pathiratna, L.S.S  
*Bulletin of the Rubber Research Institute of Sri Lanka*. 2007; 48: p. 32-37 ISSN 1391-0051  
**Keywords: Bark; Buds; Clones; Grafting; Latex; Plant disorders; Rootstocks; Rubber**
78. Characterisation of recombinant *Hevea brasiliensis* allene oxide synthase: Effects of cyclooxygenase inhibitors, lipoxygenase inhibitors and salicylates on enzyme activity/Gareth Norton, ... [et al.]  
*Plant Physiology and Biochemistry*, Volume 45, Issue 2, February 2007, p. 129-138, ISSN 0981-9428.  
**Keywords: Allene oxide synthase; Hevea brasiliensis; Jasmonic acid; Laticifers**
79. Chemical degradation of a Ferralsol (Oxisol) under intensive rubber (*Hevea brasiliensis*) farming in tropical China/Hua Zhang, ... [et al.]  
*Soil and Tillage Research*, Volume 93, Issue 1, March 2007, p. 109-116, ISSN 0167-1987.  
**Keywords: Ferralsols; Oxisols; Hevea brasiliensis; Sustainable management; Soil quality; Soil acidification; Tropics**

80. Chemical degradation of Ferral;sol (Oxisol) under intensive rubber (*Hevea brasiliensis*) farming in tropical China/Zhang Hua. ... [et al.]  
*Soil and Tillage Research*. 2007; 93(93(1): p. 109-116 ISSN 0167-1987  
**Keywords:** Acidification; Aluminium; Cation; Chemical degradation; Ferralsols; Liming; Nutrient availability; Organic carbon; Oxisols; Phosphorus; Soil amendments; Soil fertility; Soil organic matter; Soil pH; Soil types; Sorption; Sustainability
81. Cloning and expression of the gene encoding solanesyl diphosphate synthase from *Hevea brasiliensis*/Atiphon Phatthiya, ... [et al.]  
*Plant Science*, Volume 172, Issue 4, April 2007, p. 824-831, ISSN 0168-9452.  
**Keywords:** Solanesyl diphosphate synthase; Plastoquinone; Frey Wyssling particle; Prenyl diphosphate synthase; *Hevea brasiliensis*; Rubber latex; Cloning
82. Impact of effective soil volume on growth and yield of rubber (*Hevea brasiliensis*)/D.V.K. Nageswara Rao, M.D. Jessy.  
*Geoderma*, Volume 141, Issues 3-4, 15 October 2007, p. 332-340. ISSN 0016-7061,  
**Keywords:** Effective soil volume; Factor analysis; Regression; Factor scores; First layer effective soil volume; Growth; Rubber latex yield

83. Performance of new Hevea clones from IAC series/Goncalves. ...[et.al.]  
*Scientia Agricola* 2007; 64(3) : p. 241-248 ISSN 0103-9016  
**Keywords: Adaptability; Climate; Climate factors; Clones; Crop yield; Genetic diversity; Genetic variation; Genotypes; Hybrids; New cultivars; Plant breeding; Rubber; Yield components**
84. Possibility of early commencement of tapping in rubber (*Hevea brasiliensis*) using different genotypes and tapping systems/Gunasekara, H.K.L.K. ... [et al.]  
*Experimental Agriculture* 2007; 43(2): p. 202-221 ISSN 0014-4797  
**Keywords: Crop yield; Genotypes; Latex; Tapping; Ethephon; Plant growth regulators**
85. Quantification of carbon stored in the aerial part and roots of 12-year-old *Hevea* sp. In the “zona da mata mineira”/Fernandes, T.J.G. ... [et al. ]  
*Revista Arvore.* 2007; 31(4): p. 757-665 ISSN 0100-6762  
**Keywords: Branches; Carbon sequestration; Diameter; Greenhouse effect; Leaves; Plant height; Roots; Spacing; Stems**
86. Variation of soil fertility and carbon sequestration by planting *Hevea brasiliensis* in Hainan Island, China/Cheng ChunMan; Wang RuSong; Jiang JuSheng  
*Journal of Environmental Sciences* 2007; 19(3): p. 348-352 ISSN 1001-0742  
**Keywords: Calcium carbonate; Carbon; Carbon sequestration; Consumption; Ecosystems; Environmental impact; Fertilizers; Forests; Intercropping; Nutrient availability; Nutrients; Organic matter; Phosphorus; Plantations; Potassium; Properties; Rain; Rain Forests; Soil fertility; Soil organic matter; Soil properties; Stand age; Trees; Tropical forests; Tropics;**



## TROPAG & RURAL

87. Chemical degradation of a Ferralsol (Oxisol) under intensive rubber (*Hevea brasiliensis*) farming in tropical China/Zhang-Hua ...[et.al.]  
*Soil and Tillage Research*. 2007; 93(1): p. 109-116 0167-1987  
**Keywords:** Acidification; Aluminium; Cations; Chemical degradation; Ferralsols; Liming; Nutrient availability; Organic carbon; Oxisols; Phosphorus; Soil amendments; Soil fertility; Soil organic matter; Soil pH; Soil types; Sorption; Sustainability; Tropics
88. Impact of effective soil volume on growth and yield of rubber (*Hevea brasiliensis*)/Rao, D.V.K.N; Jessy, M.D  
*Geoderma*-. 2007; 141(3/4): p. 332-340 0016-7061  
**Keywords:** Clay fraction; Factor analysis; Growth; Latex; Rubber; Sand fraction; Silt fraction; Soil depth; Soil formation; Soil physical properties; Water availability; Yields
89. Performance of new *Hevea* clones from IAC 400 series/  
Goncalves, P.de S  
*Scientia Agricola*. 2007; 64(3): p. 241-248 0103-9016  
**Keywords:** Adaptability; Climate; Climatic factors; Clones; Crop yield; Genetic diversity; Genetic variation; Genotypes; Hybrids; New cultivars; Plant breeding; Rubber; Yield components
90. Possibility of early commencement of tapping in rubber (*Hevea brasiliensis*) using different genotypes and tapping systems/  
Gunasekara, H.K.L.K  
*Experimental Agriculture*. 2007; 43(2): p. 201-221 0014-4797  
**Keywords:** Crop yield; Genotypes; Latex; Tapping; Ethephon; Plant growth regulators

91. Quantification of carbon stored in the aerial part and roots of 12-year-old *Hevea* sp., in the "zona da mata mineira"/Fernandes, T.J.G  
*Revista Arvore*. 2007; 31(4): p. 657-665 0100-6762  
**Keywords:** **Branches; Carbon sequestration; Diameter; Greenhouse effect; Leaves; Plant height; Roots; Spacing; Stems**
92. Variation of soil fertility and carbon sequestration by planting *Hevea brasiliensis* in Hainan Island, China/Cheng Chun Man; Wang Ru Song; Jiang Ju Sheng  
*Journal of Environmental Sciences*. 2007; 19(3): p. 348-352 1001-0742  
**Keywords:** **Calcium carbonate; Carbon; Carbon sequestration; Consumption; Ecosystems; Environmental impact; Fertilizers; Forests; Intercropping; Nutrient availability; Nutrients; Organic matter; Phosphorus; Plantations; Potassium; Properties; Rain; Rain forests; Soil fertility; Soil organic matter; Soil properties; Stand age; Trees; Tropical forests; Tropics; Variation; Woody plants**

## BIBLIOGRAFI 2008

### SCIENCEDIRECT

93. cDNA, from *Hevea brasiliensis* latex, encoding 1-deoxy-d-xylulose-5-phosphate reductoisomerase/Krueawan Yoonram ...[et al.]  
*Plant Science*, Volume 175, Issue 5, November 2008, p. 694-700, ISSN 0168-9452.  
**Keywords: Hevea brasiliensis; Euphobiaceae; 1 Deoxy d xylulose 5 phosphate reductoisomerase; Frey Wyssling particles; Rubber latex; Rubber biosynthesis**
94. *Hevea* latex lectin binding protein in C-serum as an anti-latex coagulating factor and its role in a proposed new model for latex coagulation /Rapepun Wititsuwannakul ...[et al.]  
*Phytochemistry*, Volume 69, Issue 3, February 2008, p. 656-662, ISSN 0031-9422.  
**Keywords: Hevea brasiliensis; Euphorbiaceae; Rubber latex; C-serum; Lectin; Lectin binding protein; [alpha] Globulin; Latex flow; Anti coagulating factor; Latex coagulation**
95. Induction of peroxidase, scopoletin, phenolic compounds and resistance in *Hevea brasiliensis* by elicitor and a novel protein elicitor purified from *Phytophthora palmivora*/Chinnapun Dutsadee, Churngchow Nunta,  
*Physiological and Molecular Plant Pathology*, Volume 72, Issues 4-6, July-September 2008, p. 179-187, ISSN 0885-5765.  
**Keywords: Hevea brasiliensis; Phytophthora palmivora; Elicitor; Scopoletin; Peroxidase activity; Phenolic compounds**

96. Molecular cloning and characterization of two cDNAs encoding 1-deoxy-d-xylulose 5-phosphate reductoisomerase from *Hevea brasiliensis*/Yortyot Seetang-Nun, Thomas D. Sharkey, Wallie Suvachittanont,  
*Journal of Plant Physiology*, Volume 165, Issue 9, 16 June 2008, p. 991-1002, ISSN 0176-1617.  
**Keywords: 1-Deoxy-d-xylulose 5-phosphate reductoisomerase; Ethylene or ethephon; Hevea brasiliensis; Isoprenoid biosynthesis; Rubber biosynthesis**
97. Role for a *Hevea* latex lectin-like protein in mediating rubber particle aggregation and latex coagulation/Rapepun Wititsuwannakul...[et.al.]  
*Phytochemistry*, Volume 69, Issue 2, January 2008, p. 339-347, ISSN 0031-9422.  
**Keywords: Hevea brasiliensis; Euphorbiaceae; Rubber latex; Lectin; Agglutinin; Rubber particle; Latex coagulation**
98. Rubber particle protein specific for *Hevea* latex lectin binding involved in latex coagulation/Rapepun Wititsuwannakul, Kamonchanok Ruksee, Kamonwan Kanokwiroon, Dhirayot Wititsuwannakul,  
*Phytochemistry*, Volume 69, Issue 5, March 2008, p. 1111-1118, ISSN 0031-9422.  
**Keywords: Hevea brasiliensis; Euphorbiaceae; Rubber particle; Lectin receptor; Rubber particle protein; Rubber latex; Latex coagulation**

## TROPAG & RURAL

99. Decomposition of the rubber tree *Hevea brasiliensis* litter at two depths/Greggio, T.C ...[et al.]  
*Chilean Journal of Agricultural Research*-. 2008; 68(2): p. 128-135. ISSN: 0718-5820  
**Keywords:.** Carbon dioxide; Carbon sequestration; Cellulose; Cecomposition; Forest litter; Forest soils; Lignin; Microbial activities; Nutrients; Oxisols; Soiltypes; Sustainability
100. Mites (Acari) from rubber trees (*Hevea brasiliensis* Muell. Arg., Euphorbiaceae) and spontaneous euphorbiaceous in rubber trees cultivation/Bellini, M.R; Feres, R.J.F; Buosi, R  
*Neotropical Entomology*. 2008; 37(4): p. 463-471 ISSN:1519-566x  
**Keywords:** Arthropod pests; Cultivation; Plant pests; Predators; Predatory mites; Rubber; Species diversity; Species richness

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