

## References

- Adegoke, G. O. and B. A. Odesola. 1996. Storage of maize and cowpea and inhibition of microbial agents of biodeterioration using the powder and essential oil of lemon grass (*Cymbopogon citrates*). *International Biodeterioration and Biodegradation* 95: 81-84.
- Agrios, G. N. 1997. Plant Pathology. 4<sup>th</sup> (ed). Academic Press, San Diego, USA. 635 p.
- Allard, R. W. 1966a. Breeding for disease resistance In Principles of plant breeding 3<sup>rd</sup> (ed.). John Wiley & Sons, Inc. New. York, USA. pp. 323-369.
- Allard, R. W. 1966b. Genetic basis of breeding self-pollinated crops: Principles of plant breeding, 3<sup>rd</sup> (ed.), John Wiley & Sons, Inc. New. York, USA. pp. 109-150.
- Anderson, W. F., C. C. Holbrook, D. M. Wilson and M. E. Matheron. 1995. Evaluation of preharvest aflatoxin contamination in several potentially resistant peanut genotypes. *Peanut Sci.* 22: 29 – 32.
- Anderson, W. F., C. C. Holbrook and D. M. Wilson. 1996. Development of greenhouse screening for resistance to *Aspergillus parasiticus* infection and preharvest aflatoxin contamination in peanut. *Mycopathologia* 135 (2): 115-118.
- Arora, M. and R. N. Strange. 1991. Phytoalexin accumulation in groundnuts in response to wounding. *Plant Sci.* 78: 157-163.
- Asevedo, I. G., W. Gambale, B. Correa, C. R. Paula, R. M. A. Almeida and V. M. S. Framil. 1993. Influence of temperature and relative humidity on production of aflatoxins in samples of stored maize artificially contaminated with *Aspergillus flavus* (Link). *Revista de Microbiologia* 24 (1): 32-37.
- Atkins, D. and J. Norman. 1998. Mycotoxins and food safety. *Nutrition and Food Sci.* 5: 260-266.
- Azaizeh, H. A., R. E. Pettit, O. D. Smith and R. A. Taber. 1989. Reaction of peanut genotypes under drought stress to *Aspergillus flavus* and *A. parasiticus*. *Peanut Sci.* 16: 109-113.
- Azaizeh, H. A. and R. E. Pettit. 1987. Influence of tannin-related compounds from peanut seed coats and cotyledons on *Aspergillus parasiticus* growth and aflatoxin production. *Phytopathol.* 77: 1703-1706.

- Azaizeh, H. A., R. E. Pettit, B. A. Sarr and T. D. Phillips. 1990. Effect of peanut tannin extracts on growth of *Aspergillus parasiticus* and aflatoxin production. *Mycopathologia* 110 (3): 125-132.
- Baker, R. J. 1978. Issues in diallel analysis. *Crop Sci.* 18: 533-536.
- Bartz, Z. A., A. J. Norden, J. C. LaPrade and T. J. Demuynk. 1978. Seed tolerance in peanut (*Arachis hypogaea* L.) to members of the *Aspergillus flavus* group of fungi. *Peanut Sci.* 5: 53-56.
- Bayles, C. J., M. S. Ghemawat and J. R. Aist. 1990. Inhibition by 2-deoxy-D-glucose of callose formation, papilla deposition, and resistance to powdery mildew in ml-o barley mutant. *Physiol. Mol. Plant Pathol.* 36: 63-72.
- Bayman, P. and P. J. Cotty. 1993. Genetic diversity in *Aspergillus flavus*: association with aflatoxins production and morphology. *Can. J. Bot.* 71: 23-31.
- Bdliya, P. M. And J. S. Burris. 1988. Diallel analysis of tolerance of drying injury in seed corn. *Crop Sci.* 28: 935-938
- Bennett, J W., D. Bhatnager and P. K. Chang. 1994. The molecular genetics of aflatoxin biosynthesis. In Powell, K. A., J. F. Peberdy and A. Renwick (ed.). FEMS Symposium No. 69 The genus *Aspergillus*: From taxonomy and genetics to industrial application. Plenum Press, New York. pp. 51-58.
- Boller, T. and N. T. Keen. 2000. Resistance genes and the perception and transduction of elicitor signals in host-pathogen interactions. In Slusarenko A. J., R. S. S. Fraser and L. C. van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. pp.189-230.
- Broekaert, W. F., F. R. G. Terras and B. P. A. Cammue. 2000. Induced and preformed antimicrobial proteins. In Slusarenko A. J., R. S. S. Fraser and L. C. van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. pp. 371-478.
- Brown, R. L., T. E. Cleveland, G. A. Payne, C. P. Campbell and D. G. White. 1995. Determination of resistance to aflatoxins production in maize kernels and detection of fungal colonization using *Aspergillus flavus* transformant expressing *Escherichia coli*  $\beta$ -glucuronidase. *Phytopathol.* 85: 983-989.

- Brown, R. L., Z. Y. Chen, T. E. Cleveland and J. S. Russin. 1999. Advances in the development of host resistance in corn to aflatoxin contamination by *Aspergillus flavus*. *Phytopathol.* 89:113-117.
- Buonaurio, R. and M. Servili. 1999. Involvement of lipoxygenase, lipoxygenase pathway volatiles, and lipid peroxidation during the hypersensitive reaction of pepper leaves to *Xanthomonas campestris* pv. *vesicatoria*. *Physiological Mol. Plant Pathol.* 54: 155-169.
- Burow, G. B., H. W. Harold and N. P. Keller. 2000. A peanut seed lipoxygenase responsive to *Aspergillus* colonization. *Plant Mol. Biol.* 42(5): 689-701.
- Burow, M. D. and J. G. Coors. 1994. Diallel a microcomputer program for the simulation and analysis of diallel crosses. *Agron. J.* 86: 154-158.
- Calvo, A. M., L. L. Hinze, H. W. Gardner and N. P. Keller. 1999. Sporogenic effect of polyunsaturated fatty acids on development of *Aspergillus* spp. *Appl. Env. Microbiol.* 65: 3668-3673.
- Cattan, P. and A. Fleury. 1998. Flower production and growth in groundnut plants. *European J. Agron.* 8: 13-27.
- Chen, Z. Y., R. L. Brown, A. R. Lax and B. Z. Guo. 1998. Resistance to *Aspergillus flavus* in corn kernels is associated with a 14-kDa protein. *Phytopathol.* 88 (4): 276-281.
- Chen, Z. Y., R. I. Brown, J. S. Russin, A. R. Lax and T. E. Cleveland. 1999. A corn trypsin inhibitor with antifungal activity inhibits *Aspergillus flavus*  $\alpha$ -amylase. *Phytopathol.* 89: 902-907.
- Comménil, P., L. Brunet and J. C. Audran. 1997. The development of the grape berry cuticle in relation to susceptibility to bunch rot disease. *J. Expt. Bot.* 48:1599-1607.
- Costa, J. L., A. C. da, S. Kushalappa, and A. C. Alfenas. 1988. Effect of protein extracts of corn on aflatoxin B production. *Revista de Microbiologia* 19 (1): 67-70.
- Cotty, P. J., T. E. Cleveland, R. L. Brown and J. E. Mellon. 1990. Variation in polygalacturonase production among *Aspergillus flavus* isolates. *Appl. Env. Microbiol.* 56: 3885-3887.
- Cotty, P. J. and K. F. Cardwell. 1999. Divergence of West Africa and North American communities of *Aspergillus* section *flavi*. *Appl. Env. Microbiol.* 65: 2264-2266.

- Cuero, R. G. and G. O. Osuji. 1995. *Aspergillus flavus*-induced chitosanase in germinating corn and peanut seeds: *A. flavus* mechanism for dominance over associated fungi and concomitant aflatoxin production. *Food Additives and Contaminants* 12 (3): 479-483.
- Dange, S. R. S. and V. J. Patel. 1984. Effect of relative humidity and storage period on fungal invasion and viability of groundnut seeds. *Bulletin of Grain Technol.* 22 (3): 225-231.
- Dicken, J. W., J. B. Satterwhite and R. E. Sneed. 1973. Aflatoxin-contaminated peanuts produced on North Carolina farms in 1968. *J. Am. Peanuts Res. Ed. Assoc.* 5: 48-58.
- Diener, U. L., C. R. Jackson, W. E. Cooper, R. J. Stipes and N. D. Davis. 1965. Invasion of peanut pod in the soil by *Aspergillus flavus*. *Plant Dis. Rep.* 49: 931-935.
- Diener, U. L., R. E. Pettit and R. J. Cole. 1982. Aflatoxin and other mycotoxins in peanut. *In* Patteand, H. E. and C. T. Young (ed.). *Peanut Science and Technology*. Apress, Yoakum, India, pp 486-519.
- Diener, U. L., R. J. Cole, T. H. Sanders, G. A. Payne, L. S. Lee and M. A. Klich. 1987. Epidemiology of aflatoxins formation by *Aspergillus flavus*. *Ann. Rev. Phytopathol.* 25: 249-270.
- Dorner, J. W., R. J. Cole and P. D. Blankenship. 1998. Effect of inoculum rate of biological control agents on preharvest aflatoxin contamination of Peanuts. *Biological control* 12: 171-176.
- Dorner, J. W. and R. J. Cole. 2002. Effect of application of nontoxigenic strains of *Aspergillus flavus* and *A. parasiticus* on subsequent aflatoxin contamination of peanuts in storage. *J. stored Prod. Res.* 38: 329-339.
- Dohlman, E. 2004. Mycotoxin Regulations Implications for International Agricultural Trade. Issues in Diet, Safety, and Health / Agriculture Information Bulletin Number 789-6, February 2004. Economic Research Service / USDA. [Online]. Available: <http://www.ers.usda.gov/publications/aib789/aib789-6/aib789-6.pdf> [2004, July 11].

- Du, C. G., L. R. Nelson and M. E. McDaniel. 1999. Diallel analysis of gene effects conditioning resistance to *Stagonospora nodorum* (Berk) in wheat. *Crop Sci.* 39: 686-690.
- Du, W., Z. Huang, J. E. Flaherty, K. Wells and G.A. Payne. 1999. Green fluorescence protein as a reporter to monitor gene expression and food colonization by *Aspergillus flavus*. *Appl. Env. Microbiol.* 65 (2): 834-836.
- Ellis, W. O., J. P. Smith, B. K. Simpson, H. Ramaswamy and G. Doyon. 1994. Growth of and aflatoxin production by *Aspergillus flavus* in peanuts stored under modified atmosphere packaging (MAP) conditions. *International J. of Food Microbiol.* 22: 173-187.
- Egel, D. S., P. J. Cotty and K.S. Elias. 1994. Relationships among isolates of *Aspergillus* sect. *flavi* that vary in aflatoxins production. *Phytopathol.* 84: 906-912.
- FAO, 2003. [Online]. Available: [www.fao.org](http://www.fao.org) [2003, March 19].
- Fernandez, E. M., C. A. Rosolem, A. C. Maringoni and D. M. T. Oliveira. 1997. Fungus incidence on peanut grains as affected by drying method and Ca nutrition. *Field Crops Research* 52: 9-15.
- Feys, B. J. and J. E. Parker. 2000. Interplay of signaling pathways in plant disease resistance. *TIG* 16 (10): 449-455.
- Flor, H. H. 1956. The complementary genic systems in flax and flax rust. *Advances in Genetics* 8: 29-54.
- Forsythe, S. J. 2002. Application of microbiological risk assessment In The microbiological risk assessment of food. Blackwell Science Ltd. Oxford, UK. pp. 113-174.
- Fry, W. E. 1982. Principles of plant disease management. New York, Academic Press. 259 p.
- Geiser, D. M., J. W. Dorner, B. W. Horn and J. W. Taylor. 2000. The phylogenetics of mycotoxin and sclerotium production in *Aspergillus flavus* and *Aspergillus oryzae*. *Fungal Genet. Biol.* 31: 1-11.
- Gembeh, S. V., R. L. Brown, C. Grimm and T. E. Cleveland. 2001. Identification of chemical components of corn kernel pericarp wax associated with resistance to *Aspergillus flavus* infection and aflatoxin production. *J. Agric. Food Chem.* 49: 4635-4641.

- Ghewande, M. P., G. Nagaraj, S. Ddesai and P. Narayan. 1993. Screening of groundnut blod-seeded genotypes for resistance to *Aspergillus flavus* seed colonization and less aflatoxins production. *Seed Sci. and Technol.* 21: 45-51.
- Ghosh, M. and K. Ulaganathan. 1996. Mature seeds of *Sorghum* contain proteins toxic to aflatoxin-producing *Aspergillus flavus*. *J. Stored Prod. Res.* 32 (4): 339-343.
- Grayer, R. J., F. M. Kimmins, D. E. Padgham, J. B. Harborne and D. V. Ranga Rao. 1992. Condensed tannin levels and resistance of groundnuts (*Arachis hypogaea*) against *Aphis craccivora*. *Phytochem.* 31 (11): 3795-3800.
- Griffing, B. 1956. Concept of general and specific combining ability in relation to diallel crossing systems. *Aust. J. Biol. Sci.* 9: 463-493.
- Griffin, G. J. and K. H. Garren. 1974. Population levels of *Aspergillus flavus* and the *A. niger* group in Virginia peanut field soils. *Phytopathol.* 64: 322-325.
- Griffin, G. J., E. P. Smith and T. J. Robinson. 2001. Population patterns of *Aspergillus flavus* group and *A. niger* group in field soils. *Soil Biol. and Biochem.* 33: 253-257.
- Guiyuan, Z. and L. Xuanqiang. 2004. Inheritance of seed resistance in peanut to infection by *Aspergillus flavus*. [Online] Available: [www.ecdc.net.cn/newindex/chinese/page/peanut/english/027.htm](http://www.ecdc.net.cn/newindex/chinese/page/peanut/english/027.htm) [2004, September 3].
- Guo, B. Z., R. L. Brown, A. R. Lax, T. E. Cleveland, J. S. Russin, N. W. Widstrom. 1998. Protein Profiles and antifungal activities of kernel extracts from corn genotypes resistant and susceptible to *Aspergillus flavus*. *J. Food prot.* 61 (1): 98-102.
- Guo, B. Z., Z. Y. Chen, R. L. Brown, A. R. Lax, T. E. Cleveland, J. S. Russin, A. D. Mehta, C. P. Selitrennikoff and N. W. Widstrom. 1997. Germination induces accumulation of specific proteins and antifungal activities in corn kernels. *Phytopathol.* 87: 1174-1178.
- Hammerschmidt, R. 1999. Induced disease resistance: how do induced plants stop pathogens?. *Physiological and Molecular Plant Pathol.* 55: 77-84.
- Hill, R. A., P.D. Blankenship, R. J. Cole and T. H. Sanders. 1983. Effect of soil moisture and temperature on preharvest invasion of peanut by the *Aspergillus flavus* groups and subsequent aflatoxin development. *Appl. Env. Microbilo.* 45 (2): 628-633.

- Hilu, H. M. and A. L. Hooker. 1964. Host-pathogen relationship of *Helminthosporium turcicum* in resistant and susceptible corn seedlings. *Phytopathol.* 54: 570-575.
- Holaday, C.E. and J.L. Pearson. 1974. Effects of genotype and production area on the fatty acid composition, total oil and total protein in peanuts. *J. Food Sci.* 39: 1206-1209.
- Holbrook, C. C., C. K. Kvien, K. S. Rucker, D. M. Wilson, J. E. Hook and M. E. Matheron. 2000. Preharvest aflatoxins contamination in drought-tolerance and drought-intolerance peanut genotypes. *Peanut Sci.* 27 (2): 45-48.
- Holbrook, C. C., D. M. Wilson, M. E. Matheron and W. F. Anderson. 1997. *Aspersillus* colonization and aflatoxin contamination in peanut genotypes with resistance to other fungal pathogens. *Plant Dis.* 81: 1429-1431.
- Hommons, .R. D. 1973. Genetics of *Arachis hypogaeae*. In Peanut-culture and use (a symposium) Roaoke, Verginia: Stone Printing Company.
- Hood, M. E. and H. D. Shew. 1996. Applications of KOH-aniline blue fluorescence in the study of plant-fungal interaction. *Phytopathol.* 86: 704-708.
- Horn, B. W., R. L. Greene and J. W. Dorner. 1995. Effect of corn and peanut cultivation on soil populations of *Aspergillus flavus* and *A. parasiticus* in southwestern Georgia. *Appl. Env. Microbiol.* 61 (7): 2472-2475.
- Huang, J. 2001. Plant Pathogenesis and Resistance: Biochemistry and Physiology of Plant-Microbe Interaction. Kluwer Academic Publishers, Dordrecht, Netherlands. 675 p.
- Huang, Z., D. G. White and G. A. Payne. 1997. Corn seed proteins inhibitory to *Aspergillus flavus* and aflatoxins biosynthesis. *Phytopathology* 87: 622-627.
- ICRISAT. 2002. International Crops Research Institute for the Semi-Arid Tropics. [Online] Available: <http://www.icrisat.org/web/index.asp> [2002,December 19].
- Ingram, K. T., G. A. Leers and R. O. Kunchenbuch. 1998. Ouacos Quantitative Color System Version 2.5.2. The University of Georgia.
- Isaac, S. 1992. Effects of pathogenic fungal invasion on host plant physiology. Fungal-plant Interactions. Chapman and Hall, London, NewYork, Tokyo, Melbourne, Madras. pp 208-252.

- Jabs, T. and A. J. Slusarenko. 2000. The hypersensitive response. *In* Slusarenko A. J., R. S. S. Fraser and L. C. van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. pp. 279-324.
- Jones, D. G. 1987. Plant pathology: principles and practice. The Alden Press Ltd, Great Britain, Oxford, England. 191 p.
- Johnson, R. 1992. Past, present and future opportunities in breeding for disease resistance, with examples from wheat. *Euphytica* 63: 3-22.
- Kang, Z. and H. Buchenauer. 2000. Ultrastructural and immunocytochemical investigation of pathogen development and host responses in resistant and susceptible wheat spikes infected by *Fusarium culmorum*. *Physiol. and Mol. Plant Pathol.* 57: 255-268.
- Karladee, D. 1998. Genetics and Plant breeding: Plant Improvement Technology. Mingmuang Printing. Chiang Mai, pp. 23-53. (in Thai)
- Kaufman, P. B., L. J. Cseke, S. Warber, J. A. Duke, H. L. Brielmann. 1999. Natural Products from Plants. CRC Press, Boca Raton, FL, USA.
- Keller, B., C. Feuilet and M. Messmer. 2000. Genetics of disease resistance: Basic concepts and application in resistance breeding. *In* Slusarenko A. J., R. S. S. Fraser and L. C. Van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. pp. 101-160.
- Kisyombe, C. T., M. K. Beute and G. A. Payne. 1985. Field evaluation of peanut genotypes for resistance to infection by *Aspergillus parasiticus*. *Peanut Sci.* 12: 12-17.
- Kochert, K., H. T. Stalker, M. Gimenes, L. Lalaro, C. R. Lopes and K. Moore. 1996. RFLP and cytogenetic evidence on the origin and evolution of allotetraploid domesticated peanut, *Arachis hypogaea* (Leguminosea). *Am. J. Bot.* 83: 1282-1291.
- Krapovickas, A. and W. C. Gregory. 1994. Taxonomail del genero *Arachis* (Leguminosae). *Bonplandia* 8: 1-186.
- Kumudini, B. S. and H. S. Shetty. 2002. Association of lignification and callose deposition with host cultivar resistance and induced systemic resistance in pearl millet to *Sclerospora graminicola*. *Australasian Plant Pathol.* 31 (2): 157-164.



- Laprade, J. C., J. A. Bartz, A. J. Norden, and T. J. Demunyk. 1973 Correlation of peanut seed coat wax accumulation with tolerance to colonization by *Aspergillus flavus*. *Proc. Am. Peanut Res. Educ. Assn.* 5: 89-94.
- Lansden, J. A. 1982. Aflatoxin inhibition and fungistasis by peanut tannins. *Peanut Sci.* 9: 17-20.
- Lee, H. C. and T. Y. Chuang. 1993. Comparison of *Aspergillus flavus* and aflatoxin contamination among various types of peanut harvest at Penghu. *Plant Pathology Bulletin* 2 (2): 88-97.
- Lo'pez-Malo, A., S. M. Alzamora and E. Palou. 2002. *Aspergillus flavus* dose-response curves to selected natural and synthetic antimicrobials. *International J. of Food Microbiol.* 73: 213-218.
- Lucas, J. A. 1998. Plant defence *In* Plant pathology and plant pathogens. 3<sup>rd</sup>. Great Britain at the University Press, Cambridge. p 140-165.
- Makkar, H. P. S. 1995. Quantification of Tannins: A laboratory Manual. International Center for Agriculture Research in the dry areas, Aleppo, Syria. p. 1-24.
- Mansfield, J. W. 2000. Antimicrobial compounds and resistance: The role of phytoalexins and phytoanticipins. *In* Slusarenko A. J., R. S. S. Fraser and L. C. van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. p. 325-370.
- Marsh, P. B., M. E. Simpson, R. J. Ferretti, G. V. Merola, J. Donoso, G. O. Craig, M. W. Trucksess and P. S. Work. 1969. Mechanism of formation of a fluorescence in cotton fiber associated with aflatoxins in the seed at harvest. *J. Agric. Food Chem.* 17: 468-472.
- Marsh, S. F. and G. A. Payne. 1984. Preharvest infection of corn silks and kernels by *Aspergillus flavus*. *Phytopathol.* 74 (11): 1284-1289.
- Marschner, H. 1986. Mineral nutrition of higher plants. Academic Press, London, 674 p.
- Mather, K. and J.L. Jinks. 1971. Biometrical Genetics. Second Edition. Chapman and Hall Ltd. London.
- Maureen, S. W., D. M. Greene-McDowelle, H. J. Zeringue Jr, D. Bhatnagar and T. E. Cleveland. 2000. Effects of volatile aldehydes from *Aspergillus*-resistant varieties of corn on *Aspergillus parasiticus* growth and aflatoxin biosynthesis. *Toxicon* 38 (9): 1215-1223.

- McDonald, D. 1969. Groundnut pod disease. *Rev. Appl. Mycol.* 48: 465-475.
- McDonald, D. 1989. The ICRISAT approach to research on the groundnut aflatoxin problem. Aflatoxin contamination of groundnut: proceedings of the International Workshop, 6-9 Oct. 1987, ICRISAT Center, India. p. 317-321.
- Mehan, V. K. 1989. Screening groundnuts for resistance to seed invasion by *Aspergillus flavus* and to aflatoxins production. In McDonald, D. and V. K. Mehan, ed. Aflatoxin contamination in groundnut: Proceedings of an International Workshop, 6-9 Oct 1987, ICRISAT Center, Patancheru 502 324, India. pp. 323-334.
- Mehan, V. K. and C. D. Mayee. 1991. Preharvest seed infection by *Aspergillus flavus* group fungi and subsequent aflatoxin contamination in groundnuts in relation to soil types. *Plant and Soil* 136 (2): 239-248.
- Mehan, V. K. and C. L. L. Gowda. 1997. Aflatoxin contamination problems in groundnut in Asia: Proceedings of the First Asia Working Group meeting, 27-29 May 1996, Ministry of Agriculture and Rural Development, Hanoi, Vietnam.
- Mehan, V. K., D. McDonald, S. N. Nigam and K. Rajagopalan. 1987. Resistance of peanut genotypes to seed infection by *Aspergillus flavus* in field trials in India. *Peanut Sci.* 14: 17-21.
- Mehan, V. K. and D. McDonald. 1980. Screening for resistance to *Aspergillus flavus* invasion and aflatoxins production in groundnut. ICRISAT Groundnut Improvement Program Occasional paper No. 2. Patancheru, A. P. 5023 24, India.
- Mehan, V. K., D. McDonald, N. Ramakrishna and J. H. Williams. 1986. Effects of genotype and date of harvest on infection of peanut seed by *Aspergillus flavus* and subsequent contamination with aflatoxin. *Peanut Sci.* 13 (2): 46-50.
- Mellon, J. E. and P. J. Cotty. 1997. Potential role for storage proteins and sugars in cotton seed susceptibility to aflatoxin contamination. Proceedings Beltwide Cotton Conferences, New Orleans, LA, USA, January 6-10. pp. 106-108.
- Mixon, A.C. 1980. Comparison of pod and seed screening methods on *Aspergillus* spp. infection of groundnut genotypes. *Peanut Sci.* 7: 1-3.

- Mixon, A. C. and K. M. Roger. 1973. Peanut accession resistant to seed infection by *Aspergillus flavus*. *Agron. J.* 65: 560-563.
- Moerschbacher, B. and K. Mendgen. 2000. Structural aspects of defense. In Slusarenko A. J., R. S. S. Fraser and L. C. van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. pp. 231-278.
- Mohanty, B., S. M Basha, D. W. Gorbet, R. J. Cole and J. W. Dorner. 1991. Variation in phytoalexin production by peanut seed from several genotypes. *Peanut Sci.* 18 (1): 19-22.
- Molina, M. and L. Giannuzzia. 2002. Modelling of aflatoxin production by *Aspergillus parasiticus* in a solid medium at different temperatures, pH and propionic acid concentrations. *Food Res. International* 35: 585-594.
- Mongkolsiriwat, T. 1998. Inheritance of gene resistance to *Aspergillus flavus* in groundnut. Unpublished M.S. thesis, Chiang Mai University, Chiang Mai, Thailand. 55 p.
- Moss, M. O. 2002. Risk assessment for aflatoxins in foodstuffs. *International Biodeteration and Biodegradation* 50: 137-142.
- Mukherjee, P. K. and J. J. Ghosh. 1972. Role of proteins and calcium in resistance of rice to infection by *Helminthosporium oryzae*. *Phytochemistry* 11 (11): 3119-3120.
- Neucere, J. N. and M. A. Godshall. 1991. Effects of base-soluble proteins and methanol-soluble polysaccharides from corn on mycelial growth of *Aspergillus flavus*. *Mycopathologia* 113 (2): 103-108
- Nicholson, R. L. and R. Hammerschmidt. 1992. Phenolic compounds and their role in disease resistance. *Annu. Rev. Phytopathol.* 30: 369-389.
- Nigam, S. N. 2004. Groundnut: A health-enhancing food [Online]. Available: [http://www.icrisat.org/pdmo/Groundnut%20a%20health%20enhancing%20food\\_A4.pdf](http://www.icrisat.org/pdmo/Groundnut%20a%20health%20enhancing%20food_A4.pdf). [2003, May 24].
- Osuna-Canizalez, F. J., S.K. De Datta and J.M. Bonman. 1991. Nitrogen source and silicon nutrition effects on resistance to blast disease of rice. *Plant Soil* 135: 223-231.

- Pace, S., I. Piscioneri and I. Settanni. 1998. Heterosis and combining ability in a half diallel cross of kenaf (*Hibiscus cannabinus* L.) in south Italy. *Ind. Crops Prod.* 7: 317-327.
- Pagel, W. and R. Heitefuss. 1989. Calcium content and cell wall polygalacturonans in potato tubers of cultivars with different susceptibilities to *Erwinia carotovora* subsp. *atroseptica*. *Physiol. Mol. Plant Pathol.* 35 (1): 11-21.
- Perkin-Elmer. 1982. Analytical Methods for atomic Absorption Spectrophotometry. Perkin-Elmer, Palo Alto, CA.
- Pettit, R. E., R. A. Taber, O. D. Smith and B. L. Jones, 1977. Reduction of mycotoxin contamination in peanuts through resistant variety development. *Annales de Technologie Agricole* 26 (3): 343-351.
- Pieterse, C. M. J. and L. C. van Loon. 1999. Salicylic acid-independent plant defence pathways. *Trends in Plant Sci.* 4 (2): 52-58.
- Putnam, D. H., E. S. Oplinger, T. M. Teynor, E. A. Oelke, K. A. Kelling and J. D. Doll. 2003. Peanut. *Alternative Field Crops Manual*. [Online] Available: <http://www.hort.purdue.edu/newcrop/afcm/peanut.html>. [2004, October 21].
- Rao, M. V., H. Lee, R. A. Creelman, J. E. Mullet and K. R. Davis. 2000. Jasmonic acid signaling modulates ozone-induced hypersensitive cell death. *Plant Cell* 12 (9): 1633-1646.
- Rao, M. J., S. N. Nigam, V. K. Mehan, and D. McDonald. 1989. *Aspergillus flavus* resistance breeding in groundnut: Progress made at ICRISAT Center. In McDonald, D. And V. K. Mehan (ed.). Proc. Int. Workshop Aflatoxin Contamination of groundnut, Patancheru, India. 6-9 Oct. 1987. ICRISAT, Patancheru, India. pp. 345-355.
- Rao, M. J. V., H. D. Upadhayaya, V. K. Mehan, S. N. Nigam, D. McDonald and N. S. Reddy. 1995. Registration of peanut germplasms ICGV88145 and ICGV89104 resistant to seed infection by *Aspergillus flavus*. *Crop Sci.* 35: 1717.
- Richardson, M. D. and S. S. Croughan, 1989. Potassium influence on susceptibility of bermudagrass to *Helminthosporium cynodontis* toxin. *Crop Sci.* 29:1280-1282.
- Robin, Y. and Y. Chiou. 1997. Estimation of fungal infection of peanut kernels by determination of free glutamic acid content. *Appl. Env. Microbiol.* 63: 1083-1087.

- Russin, J. S., B. Z. Guo, K. M. Tubajika, R. L. Brown, T. E. Cleveland and N. W. Widstrom. 1997. Comparison of kernel wax from corn genotypes resistant or susceptible to *Aspergillus flavus*. *Phytopathol.* 87: 529-533.
- Rustom, I.Y.S. 1997. Aflatoxin in food and feed: occurrence, legislation and inactivation by physical methods. *Food Chem.* 59: 57-67.
- Ruzin, S. E. 1999. Plant Microtechnique and Microscope. Oxford University Press, Inc. 322 p.
- Samdur, M. Y., P. Manivel, V. K. Jain, B. M. Chikani, H. K. Gor, S. Desai and J. B. Misra. 2003. Genotypic differences and water deficit-induced enhancement in epicuticular wax load in peanut. *Crop Sci.* 43: 1294-1299.
- Sanders, T. H., R. J. Cole, P. D. Blankenship and R. A. Hill. 1985. Relation of environmental stress duration to *Aspergillus flavus* invasion and aflatoxin production in preharvest peanuts. *Peanut Sci.* 12 (2): 90-93.
- Sanders, T. H., P. D. Blankenship, R. J. Cole and R. A. Hill. 1984. Effect of soil temperature and drought on peanut pod and stem temperature relative to *Aspergillus flavus* invasion and aflatoxins contamination. *Mycopathologia* 83: 51-54.
- Savage, G. P. and J. I. Keenan. 1994. The composition and nutritive value of groundnut kernels. In: Smart J., (ed). The groundnut crop: A scientific basis for improvement. London: Chapman and Hall, pp. 173-213.
- Sautour, M., C. S. Mansur, C. Divies, M. Bensoussan and P. Dantigny. 2002. Comparison of the effects of temperature and water activity on growth rate of food spoilage moulds. *J Ind. Microbiol. Biotechnol.* 28: 311-315.
- Schütte, K. H. 1976. The influence of boron and copper deficiency upon infection by *Erysiphe graminis*, the powdery mildew in wheat var. *Plant and Soil* 27: 450-452.
- Scott, G. E. and N. Zammo. 1990. Preharvest kernel infection by *Aspergillus flavus* for resistant and susceptible maize hybrids. *Crop Sci.* 30: 381-383.
- Sharathchandra, R. G., S. Niranjan Raj, N. P. Shetty, K. N. Amruthesh and H. Shekar Shetty. 2004. A Chitosan formulation Elexat induces downy mildew disease resistance and growth promotion in pearl millet. *Crop Prot.* 23: 881-888

- Shearer, J. F., L. E. Sweets, N. K. Baker and L. H. Tiffany. 1992. A study of *Aspergillus flavus/parasiticus* in Iowa crop fields: 1988-1990. *Plant Dis.* 76: 19-22.
- Shorter, R. and A. Patanothai. 1997. *Arachis hypogaea* L. [Online]. Available: <http://www.agralin.nl/prosrom/arachis.html> [2003, July 28].
- Singh, A. K. and C. E. Simpson. 1994. Biosystematics and genetic resources. In Smartt, J. (ed). The groundnut crop: A scientific basis for improvement. Chapman and Hall, London. pp. 96-137.
- Singh, M. J., J. Singh and S. S. Cheema. 1998. Effect of cucumber mosaic virus on chlorophyll content and mineral elements in chili. *Plant Disease Research* 13 (2): 125-128.
- Slusarenko, A. J., R. S. S. Fraser and L. C. Van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. 620 p.
- Sommartya, T. 1997. Peanut disease. Kasetsart University. Bangkok. 236 p.
- Squir, R. A. 1989. Ranking animal carcinogens: a proposed regulatory approach. *Sci.* 214: 887-891.
- Srivastava, S. K., B. P. B. Pandey and R. S. Lal. 1978. Combining ability in a six parent diallel cross in mesta. *Ind. J. Agric. Sci.* 49 (9): 724-730.
- Stalker, H. T. 1997. Peanut (*Arachis hypogaea* L.). *Field Crop Res.* 53: 205-217.
- Stark, A. 2001. Mechanism of action of aflatoxins B<sub>1</sub> at biochemical and molecular levels In Wilson, C. L. and S. Droby. Microbial food contamination. CRC Press LLC, Florida, USA. pp. 47-60.
- Suriyong, S. 1997. Differences in seed structure on breakdown of genotypic resistance to *Aspergillus flavus* in groundnut. Unpublished M. S. thesis, Chiang Mai University, Chiang Mai, Thailand. 32 p.
- Tamil Selvi, A., G. S. Joseph and G. K. Jayaprakasha. 2003. Inhibition of growth and aflatoxin production in *Aspergillus flavus* by *Garcinia indica* extract and its antioxidant activity. *Food Microbiol.* 20: 455-460.
- Thailand Coordinated Groundnut Improvement Program. 1985. Varietal improvement. In Progress report for 1985. TCGIP, Dep. of Agric., Ministry of Agric. and Cooperation, Bangkok, Thailand. pp 3-92.

- Trese, A. T. and D. C. Loschke. 1990. High contrast resolution of the mycelia of pathogenic fungi in corn tissue after staining with Calcofluor and destaining with cellulase. *Phytopathol.* 80: 196-200.
- Trillas, M. I., L. Cotxarrera, E. Casanova and N. Cortadellas. 2000. Ultrastructural changes and localization of chitin and callose in compatible and incompatible interactions between carnation callus and *Fusarium oxysporum*. *Physiological and Molecular Plant Pathology* 56 (3): 107-116.
- Tubajika, K. M. and K. E. Damann. 2001. Sources of resistance to aflatoxins production in maize. *J. Agric. Food Chem.* 49: 2652-2656.
- Türk, M. F. 2002. Microscopic evaluation of interactions between varieties of *Arabidopsis thaliana* challenged by *Peronospora parasitica*. *Turk. J. Agric. For.* 26: 125-132.
- Upadhyaya, H. D., S. N. Nigam, V. K. Mehan, A. G. S. Reddy and N. Yellaiah. 2001. Registration of *Aspergillus flavus* seed infection resistant peanut germplasm ICGV91278, ICGV91283 and ICGV91284. *Crop Sci.* 41: 599-600.
- Udadhya, C. H. D., S. N. Nigam and R. P. Thakur. 2004. Genetic enhancement for resistance to aflatoxin contamination in groundnut. [Online]. Available: [www.Aflatoxin.info/groundnut\\_breeding.asp](http://www.Aflatoxin.info/groundnut_breeding.asp). [2004, June 21].
- Umen, U. P. 1976. Biology of peanut flowering. Amerind Publishing Co. Pvt. Ltd., NewDelhi. 78 p.
- Vaamonde, G., A. Patriarca, V. F. Pinto, R. Comerio and C. Degrossi. 2003. Variability of aflatoxins and cyclopiazonic acid production by *Aspergillus section flavi* from different substrates in Argentina. *International J. of food Microbiol.* 88: 79-84.
- Vanderplank, J. E. 1968. Disease resistance in plants. Academic press. New York and London. 206 p.
- Vanderplank, J. E. 1982. Host-pathogen interactions in plant disease. New York: Academic. 207 p.
- Van Etten, H. D., D. E. Matthews and P. S. Matthews. 1989. Phytoalexin detoxication: importance for pathogenicity and practical implication. *Ann. Rev. Phytopathol.* 27: 143-164.

- Van Loon, L. C. 2000. Systemic induced resistance. *In* Slusarenko A. J., R. S. S. Fraser and L. C. van Loon (ed.). Mechanisms of resistance to plant diseases. Kluwer Academic Publishers, Dordrecht, Netherlands. pp. 521-574.
- Varga, J., K. Rigó, S. Kocsubé, B. Farkas and K. Pál. 2003. Diversity of polyketide synthase gene sequences in *Aspergillus* species. *Research in Microbiol.* 154: 593-600.
- Vázquez-Barrios, M. E., R. Martínez-Peniche and E. Fernández-Escartín. 2001. Development of toxigenic *Aspergillus flavus* and *A. parasiticus* on kernels of native pecan [*Carya illinoensis* (Wangenh) K. Koch] genotypes under different water activities. *Scientia Horticulturae* 89: 155-169.
- Waranyuwat, A. and O. Bhumibhamon. 1988. Breeding of groundnut for resistance to *Aspergillus flavus* Kasetsart University. *In* Proceedings of the seven Thailand National groundnut meeting. Held at Zebreeze Pattaya Hotel, Chonburi, Thailand. 16-18 March, 1988.
- Weiss, E. A. 2000. Chapter 3 Groundnut. *In* Oilseed crops 2<sup>ed</sup>. pp 53-92.
- Wicklow, D. T. 1999. Influence of *Aspergillus flavus* strains on aflatoxin and bright greenish yellow fluorescence of corn kernels. *Plant Dis.* 83: 1146-1148.
- Wilson, D. M., A. C. Mixon, and J. M. Troeger. 1977. Aflatoxin contamination of peanuts resistant to seed invasion by *Aspergillus flavus*. *Phytopathol.* 67 (7): 922-924.
- Wogan, G. N. 2000. Impacts of chemicals on liver cancer risk. *Cancer Biol.* 10: 201-210.
- Woodroof, L. G. 1983. Peanuts, processing, products. Third edition. AVI Publishing, Connecticut.
- Wright, M. S., D. M. Greene-McDowelle, H. J. Zeringue, D. Bhatnagar and T. E. Cleveland. 2000. Effects of volatile aldehydes from *Aspergillus*-resistant varieties of corn on *Aspergillus parasiticus* growth and aflatoxin biosynthesis. *Toxicon* 38: 1215-1223.
- Wynne, J. C., M. K. Beute and S. N. Nigam. 1991. Breeding for disease resistance in peanut (*Arschis hypogaea* L.). *Annu. Rev. Phytopathol.* 29: 279-303.



- Xu, H., S. Annis, J. Linz and F. Trail. 2000. Infection and colonization of peanut pods by *Aspergillus parasiticus* and the expression of aflatoxin biosynthetic gene, nor-1, in infection hyphae. *Physiological and Mol. Plant Pathol.* 56: 185-196.
- Yingthongchai, P. 1994. Evaluation to cultivar resistance and critical growth stage susceptible to *Aspergillus flavus* in groundnut. Unpublished M.S. thesis, ChiangMai University, ChiangMai, Thailand. 63 p.
- Yu, J., P. Chang, K. C. Ehrlich, J. W. Cary, B. Montalbano, J. M. Dyer, D. Bhatnagar, and T. E. Cleveland. 1998. Characterization of the critical amino acids of an *Aspergillus parasiticus* cytochrome P-450 monooxygenase encoded by orfA that is involved in the biosynthesis of aflatoxins B1, G1, B2, and G2. *Appl. Env. Microbiol.* (64) 12: 4834-4841.
- Yu, J., P. Chang, J. W. Cary, M. Wright, D. Bhatnagar, T. E. Cleveland, G. A. Payne and J. E. Linz. 1995. Comparative mapping of aflatoxins pathway gene clusters in *Aspergillus parasiticus* and *Aspergillus flavus*. *Appl. Env. Microbiol.* 61 (6): 2365-2371.
- Yu, J., D. Bhatnagar and T. E. Cleveland. 2004. Completed sequence of aflatoxins pathway gene cluster in *Aspergillus parasiticus*. *FEBS Letters* 564: 126-130.
- Yu, J., D. Bhatnagar and K. C. Ehrlich. 2002. Aflatoxin biosynthesis. *Rev. Iberoam Micol.* 19: 191-200.
- Zambettakis, C. 1975. Study of the contamination of some groundnut varieties by *Aspergillus flavus*. *Oleagineux* 30 (4): 161-167.
- Zambettakis, C., and A. Bockelee-Morvan. 1976. Research on the structure of the groundnut seed coat and its influences on the penetration of *Aspergillus flavus*. *Oleagineux* 31 (5): 219-228.
- Zambettakis, C., F. Waliyar, A. Bockelee-Morvan and O. de Pins. 1981. Results of four years of research on resistance of groundnut varieties to *Aspergillus flavus*. *Oleagineux* 36: 377-385.
- Zeringue, H. J. Jr. 2002. Effects of methyl jasmonate on phytoalexin production and aflatoxins control in the developing cotton ball. *Biochem. System. and Ecol.* 30: 497-503.