

Publications

- Cuero, R.G. 1979. Ecological Distribution of Fusarium solanii and its opportunistic action related to mycotic keratitis in Cali, Colombia. *Journal of Clinical Microbiology*. Vol. 12(3).
- Cuero, R.G., 1979. Laboratory and Field Guide on Fungi: A student guide. Universidad del Valle, Biology Dept., Colombia.
- Cuero, R.G., J. Valverde, J. Gamboa, and J. Restrepo. 1983. Keeping characteristics and quality of sierra (S. sierra) and Sardina (O. libertate) in refrigerated seawater, sea, ice and refrigerated room, in Colombia. FAO/FI 812/FIUI/8. First Consultants Workshop in Pelagic Species in Latin America. Mexico, Dec., 1983. Grant from FAO/Fishery Division.
- Cuero, R.G., E.B. Lillehoj, W.F. Kwolek, and M.S. Zuber. 1985. Mycoflora and aflatoxin and preharvest maize kernels of varied endosperm type. Trichothecene and other mycotoxins. In: J. Lacey (ed). John Wiley & Sons, Ltd. pp 109-111.
- Cuero, R.G., I. Hernandez, H. Cardenas, and E. Ososrio, 1986. Mycotoxin contamination of maize harvested from the highlands and lowlands in Colombia. Proceedings, 1st USAID-USDA/CIMMYT Aflatoxin Workshop, April 6-10, 1986. Mexico.
- Cuero, R.G., J. Smith, and J. Lacey. 1986. The influence of gamma irradiation and sodium hypochlorite on maize seed microflora and germination. *Food Microbiology*. Vol. 3(2):107-113.
- Cuero, R.G., J. Smith, and J. Lacey., 1986. A novel containment system for laboratory scale solid particulate fermentations. *Biotechnology Letters*. Vol 7(7):463-466.
- Cuero, R.G. 1987. Development of mycotoxin-resistance varieties; A Systematic Approach to control mycotoxins. FAO Manuscript, FA Conference.
- Cuero, R.G., 1987. Factors governing mycotoxin production in crop plants, food and feed. Proceedings, Primera Reunion de Investigation sober Micotoxinas. Mexico, D.F., p. 52-62.
- Lacey, J., N.L. Magan, and R.G. Cuero. 1987. The influence of water and temperature on molding and mycotoxin formation. Proceedings, 4th International Working Conference on Stored Product Protection. Tel Aviv., Sept., 1986, p. 63-76.
- Cuero, R.G., J. Smith, and J. Lacey. 1987. Increase of aflatoxin production by A. Flavus in single or mixed culture either with Pichia burtonii or Bacillus amyloliquefaciens in gnotobiotic cracked maize and rice. *Applied Environmental Microbiology*, USA. Vol. 53(5):1142-1146.
- Cuero, R.G., J. Smith, and J. Lacey. 1987. Interaction of water activity, temperature and substrate on mycotoxin production by A. flavus, P. viridicatum and F. graminearum irradiated cereal grain. *Transactions of British Mycological Society Journal*, England. Vol. 89(2):221-226.
- Cuero, R.G., E. B. Lillehoj, E. Cleveland, and A. Reine. 1988. Chitosan as a control agent of toxigenic fungal growth and aflatoxin production. Proceedings of the Japanese Association of Mycotoxicology, Supp. 1. IUPAC '88 and ICPP '88. Mycotoxins and Phycotoxins.
- Cuero, R.G., J. Smith, and J. Lacey. 1988. Mycotoxin formation by Aspergillus flavus and Fusarium graminearum in irradiated maize grains in the presence of other fungi. *Journal of Food Protection*, Vol. 51(6):452-456.
- Cuero, R.G. 1989. Polysaccharide Chitosan, Natural Regulator of Fungal and Algal

- Secondary Metabolites: In relation to mycotoxin and chlorophyll production. Abstract (proceedings). Fifth European Biotechnology Conference. Denmark, July, 1989.
- Cuero, R.G., 1989. Synergistic effect of zinc chelating action chitosan on suppression of aflatoxigenic aspergilli growth and Aflatoxin production: A biocontrol method Proc. Eighth Biennial Research Symposium, Land-Grant Colleges and Universities-1890. Oct. 8-11. Arlington, VA. p. 52.
- Cuero, R.G., and E.B. Lillehoj. 1990. N-Carboxymethylchitosan: Algistatic and Algicidal Properties. *Biotechnology Tech.* 1990 Vol. 4(4) pp. 275-280.
- Cuero, R.G., E. Duffus, and G. Osuji. 1991. Aflatoxin Control in Corn and Peanut Kernels at Various Water Activities and Temperatures: Effects of *Bacillus subtilis* and Chitosan. Proceedings 5th International Working Conference on Stored Product Protection. Bordeaux, France, September 9-14, 1990. F. Fleurat-Lessard and P. Ducom (Eds.), Vol. 1., pp. 279-290.
- Fajardo, J., R.G.Cuero, R. Waniska, and R. Pettit. 1991 Enhanced Elicitation of Phenolics in Peanut Cotyledons by N-carboxymethylchitosan at Different Water Activities. Abstract: American Peanut Research Society and Education, June, 1991.
- Osuji, G.O., R.G. Cuero, and A. Washington. 1991 The Effects of Alfa-Ketoglutarate on the Activities of Glutamate Dehydrogenase, Glutamate Synthase, and Aspartate Transaminase of Sweet Potato, Yam Tuber and Cream Pea. *Journal of Agricultural and Food Chemistry*, Vol. 39:1590-1595.
- Cuero, R.G., E. Duffus, G. Osuji, and R. Pettit. 1991. Aflatoxin Control in Preharvest Maize: Effects of Chitosan and Microbial Agents. *Journal of Agricultural Science*, Vol. 117:165-169.
- Cuero, R.G., G. Osuji, and E. Duffus. 1991. N-Carboxymethylchitosan: Uptake and effect on chlorophyll production, water potential and biomass in tomato plants. *Food Biotechnology* Vol. 5(2), pp. 95-103.
- Cuero, R.G., G. Osuji, E. Duffus, R. Waniska, R. Pettit, and J. Fajardo. 1991. Aflatoxin Control in Postharvest Peanut Kernels at Various Water Activities and Times: Effects of *Bacillus subtilis* and Chitosan. Abstract: American Peanut Research and Education Society, June, 1991.
- Cuero, R.G., G. Osuji, and A. Washington. 1991. N-Carboxymethylchitosan inhibition of *Aspergillus* species growth and aflatoxin production; Role of zinc. *Biotechnology Letter*. Vol. 13(6), pp 441-444.
- Cuero, R.G., G. Osuji. 1991. Chitosanase Production by strain of *Bacillus* spp: An Effective Biocontrol Method. Proceedings Forum for Applied Biotechnology, Belgium, Sept. 1991*.
- Osuji, G. and R.G. Cuero. 1991. The use of N-carboxymethylchitosan to Enhance the Storage protein Contents of Cereal Crops and Root Tubers. Proceedings, Forum for Applied Biotechnology, Belgium, Sept. 1991.
- Cuero, R.G., R. Waniska, J. Fajardo, G. Osuji, and E. Duffus. 1991. Enhancement of Phytoalexin and Chitosanase by Chitosan in Germinating Peanut: Biocontrol of Toxigenic Fungi and Mycotoxins. In: 5th Int. Conf. on Chitin and Chitosan (C.J. Brine, P.A. Sandford, and J.P. Zikakis, eds.), Princeton, NJ. 1991. Elseviere Pub. Co. pp. 419-432.
- Cuero, R.G., and G. Osuji. 1991. Chitosanase Bioinduction by Two Strains of *Bacillus* sp. and Chitosan in Peanut: An Effective Biocontrol of Pathogenic and Toxigenic

- Fungi. Med. Fac. Landbouww. Rijksuniv. Gent, 56(4a), PP. 1415-1425.
- Osuji, G.O. and R.G. Cuero. 1992. N-Carboxymethylchitosan Enhancement of Storage Protein Contents of Maize Seeds (*Zea mays* L.). Food Biotechnology, Vol. 6(2):105-126.
- Osuji, G.O. and R.G. Cuero. 1992. Regulation of Ammonium Ion Salvage and Enhancement of the Storage Protein Contents of Corn, Sweet Potato, and Yam Tuber by N-(Carboxymethyl) Chitosan Application. J. of Agr. and Food Chemistry, Vol. 40:724-734.
- Cuero, R.G. and G. Osuji. 1992. Chitosanase Induction by Interaction of *Bacillus* species with chitosan as Defense Mechanism Against Fungi in Germinating Peanut and Corn Seeds. Abstract 9th International Biotechnology Symposium. Crystal City, Aug. 16-21, 1992.
- Cuero, R.G. and G. Osuji. 1992. *Aspergillus flavus* Induced-chitosanase in Germinating Corn and Peanut Seeds: *A. flavus* Mechanism for Growth Dominance and Toxin Production. Proceedings 8th Int. IUPAC Symposium on Mycotoxins and Mycotoxins. Mexico City, Nov. 8-11, 1992.
- Cuero, R.G. and G. Osuji. 1993. Chitosanase Induction in Maize and Peanuts: Enzyme - Inducing Factors. In: Chitin Enzymology (R.A.A. Muzzarelli, ed.), Eur. Chitin Soc., Ancona, 1993. pp 277-288.
- Osuji, G. and R. Cuero. 1993. The biochemical basis of N-carboxymethylchitosan-mediated enhancement of the storage protein content of sweetpotato. In: Sweetpotato Technology for the 21st Century (W.A. Hill, C.K. Bonsi, and P.A. Loretan, eds.). Tuskegee University, Tuskegee, AL, USA, pp 78-86.
- Cuero, R.G. 1994. Fungal chitosanase polypeptides and their role in microbial interactions. Fifth International Mycological Congress, Vancouver, Canada, August 14-21, 1994. Abstract, Page 44.
- Madu, W.C., R. Buero, A. Mangaroo, and G. Osuji. 1994. A Rapid Method for Generating Suspension Cell Cultures of Root and Tuber Crops (Abstract. The Fifth Gatlinburg Symposium. Technology Transfer of Plant Biotechnology. Knoxville, Tennessee. May 24-28, 1994.
- Madu, W.C., A. Mangaroo, R. Cuero, and G. Osuji, 1994. Effects of physical and chemical factors of sweetpotato (*Ipomoea batatas* L.). Ass. of Res. Directors, Inc. Tenth Biennial Research Symposium, 1890 Land-Grant Colleges and Universities. Oct. 2-5, 1994, New Orleans, Abstract, page 33.
- Beyene, A., R. Cuero, A. Mangaroo, and G. Osuji. 1994. Lead Uptake in Corn (*Zea mays* L.): Mechanisms of uptake. Ass. of Res. Directors, Tenth Biennial Research Symposium, 1890 Land-Grant Colleges and Universities. Oct. 2-5, 1994. New Orleans, Abstract, Page 34.
- Vaughn, V.A., G. Osuji, A. Mangaroo, and R. Cuero. 1994. Cadmium uptake in sweetpotato (*Ipomea batatas*): Mechanisms of Uptake. Ass. of Res. Directors Inc., Tenth Biennial Research Symposium. 1890 Land-Grant Colleges and University, Oct. 2-5, 1994. New Orleans, Abstract, Page 41.
- Farjardo, L., R. Waniska, R. Cuero, and R. Pettit. 1994. Phenolic Compounds in Peanut Seeds: Enhanced Elicitation by Chitosan and Effects on Growth and Aflatoxin B1 Production by *Aspergillus flavus*. Food Biotechnology, Vol. 8(2&3): 191-211.
- *Farjardo, L., R. Waniska, R. Cuero, and R. Pettit. 1994. Effects of Chitosan and *Aspergillus flavus* on Isozymes Related to Phenolic compound Synthesis and

- Protein Profiles of Peanut Seeds. *Food Biotechnology* Vol. *(2&3):213-228.
- Cuero, R.G. and G. Osuji. 1995. *Aspergillus flavus*-induced chitosanase in germinating corn and peanut seeds: A. *flavus* mechanism for growth dominance over associated fungi and concomitant aflatoxin production. *J. Food Additives and Contaminants*. Vol. 12(3):479-483.
- Cuero, R.G. 1996. Enhanced Heavy Immobilization by a Bacterial-Chitosan Complex in Soil. *Biotechnology Letters*. Vol. 18(5):511-514.
- Cuero, R.G. 1996. Recovery of Chromium, Lead, Copper and Zinc by Chitosan and Bentonite in Sludge Material. *Rioresource Technology* (Submitted).
- Cuero, R.G. And T. Ouellett. 1996. Interactive Effects of Zinc and Associated Mycoflora in Toxicogenic *Fusarium* DNA and *Aspergillus* in Relation to Growth and Toxins Production (Abstract): IX International IUPAC Symposium on Mycotoxins and Phycotoxins. Rome, 27-31, 1996.
- Gilmore, X and R. Cuero. 1997. Fungal DNA Changes Induced by Microbial Mixed Population and Soil Copper. *Proceedings. XI Biennial Research Symposium, 1890 Universities*. San Antonio, September, 1997.
- Konas, J. and R. Cuero. 1997. Interactive effects of soil minerals and fungal mixed population in mycotoxin production and growth of toxigenic mold. *Proceedings XI Biennial Research Symposium, 1890 Universities*. San Antonio, Texas, Sept. 1997.
- M'rbjjewe, G. and R. Cuero. 1997. Agroecosystem Communities as a Source of Allergic Fungal Diseases in Human and Animals: Cytotoxic Effects in Human. *Proceedings XI Biennial Research Symposium, 1890 Universities, San Antonio, Texas Sept. 1997*.
- Cuero, R.G., E. Duffus, M. Williams, D. Baca, and M. Navarro. 1998. Effects of Zinc and Associated Mycoflora on Fungal Growth and toxins Production: *F. moniliforme*, *F. Graminearum*, *Aspergillus flavus*. In: *Mycotoxins and Phycotoxins, Developments in Chemistry, Toxicology and Food Safety*, ed. by M. Miraglia, H. van Egmond, C. Brera, J. Gilbert (eds.). Chapter 33:311-319, Alaken, Inc.
- Smith, J., J. Lacey, R. Cuero, N. Ramakrishma, and N. Gqaleni. 1998. Storage Product Ecology and Mycotoxin Formation. In: *Mycotoxins and Phycotoxins-Developments in Chemistry, Toxicology and Food Safety*, eds. by M. Miraglia, H. Van Egmond, C. Brera, J. Gilbert. Chapter 31:289-302.
- Cuero, R., J. Williams, and J. Konan. 1998. Zinc and Copper Interaction on Control of Growth and Mycotoxins Production by *Aspergillus* and *Fusarium* Species. *International Symposium on Mycotoxin: Mycotox 98*. Toulouse-France: 1-4 July, 1998.
- Cuero, R. 1998. Mycotoxins Control: Role of Heavy Metals. VII International Latin America Congress of Botany. *Mycotoxin Symposium*. Oct 18-24, 1998. Mexico City. Abstract.
- Cuero, R. 1998. Effects of Metal Ions on Growth of Toxicogenic Fungi and Concomitant Toxin Production. *Proceedings. Mycotoxin Symposium*. Toulouse, France, August, 1998.
- Cuero, R., E. Duffus, M. Williams, D. Baca, and M. Navarro. 1998. Effects of zinc and associated mycoflora on fungal growth and toxin production: *F. moniliforme*, *F. Graminearum*, *Aspergillus flavus*. In: *Mycotoxins and Phycotoxins-Development in Chemistry, Toxicology and Food Safety*, ed. by M. Miraglia, H. Van Egmond, C. Brera, J. Gilbert. Chapter 33:311-319. Alleken Publishing Co.

- Cuero, R. 1999. Book Chapter. Antimicrobial Action of Exogenous Chitosans. In: Chitin and Chitinase 9P. Jolles and R.A. Muzzarelli, eds.). Page 315-333. Birkhauser-Verlag Publishing Co.
- Franzoloni, M. W. Fambale, R. Cuero, and B. Correa. 1999. Interaction between toxigenic *Aspergillus flavus* and mites on maize grains: effects on fungal growth and aflatoxin production. *Journal of Storage Product*. Vol. 35:215-224
- Cuero, R. 2001. Regulation of mycotoxins formation and fungal growth by metal ions and fertilizer: effect on fungal gene expression. In: *Mycotoxins in Perspectives at the Turn of the Millennium* (W.J. de Koe, R.A. Samson, H.P. van Egmond, J. Gilbert, M. Sabino, eds.). Chapter 10: 355-361. Proceedings of the 10th Mycotoxins IUPAC Symposium, Guaruja, Brazil, 2000. IUPAC/AOAC.
- Cuero, R., H. Ibarguen, and A. Chatham. 2001. Effect of Metal ions on electrokinetic of cells growth, metabolism, and molecular mechanisms: A Bio-nanotechnology Study. 10th European Congress of Biotechnology. Madrid, 8-11 July, 2001. Abstract HEA #43
- Cuero, R., et al.. 2001. Fungal RNA engancement by metal ions and its effects on growth and on mycotoxin metabolism: RT-PCR characterization. 10th European Congresss of Biotechnology. Madrid, 8-11 July, 2001. Abstract #AGR #18
- Cuero, R., H. Ibarguen, and G. Mmbijjwe. 2000. Fungal Cytotoxicity and Toxigenicity Induced by Metal Ions: Effect on Hum and Animals. In: *Metal Ions In Biology and Medicine*; vol. 6. Eds. J.A. Centeno, Ph. Collery, G. Vernet, R.B. Fimkelman, H. Gibb, J.C. Etienne. John Libbey Eurotex, Paris. Pp 765-767
- Cuero, R. 2001. Bio-nanotechnology : Key for Biotechnology to the Molecular Level. Scientific article. G.I.T. Verlag. Publishing LTD. Darmstadt, Germany
- Cuero, R. T. Ouellet, J. Yu, and N. Mogongwa. 2003. Metal Ions Enhancement of Fungal Growth, Gene Expression, and aflatoxin: RT-PCR Characterization. *Journal of Applied Microbiology*. Vol. 94(4)
- Cuero, R., T. Ouellet, J. Yu, N. Mogongwa. 2002. Metal effect on fungal toxin, genetic expression, and growth regulation: use of RT-PCR, subtraction library, and electrospray ionization. Abstract #1085.. Seventh International Mycological Congress. Oslo, August, 2002.
- Cuero, R. and H.Ibarguen. 2002. Metal Ions Mediation of Fungal Metabolism and Genetic Expression in Relation to Cytotoxicity and Toxigenicity in Human and Animals. In: *Molecular an Cellular Biochemistry* 222, 1-229, 2001. Proceedings. Second Conference on Molecular Mechanisms of Metal Toxicity and Carcinogenesis. September 8-11, 2002, Morgantown, W. Virginia.
- Cuero, R., T. Ouellet, J. Yu, and N. Mogongwa. 2003. Metal Ion Enhancement on Fungal Growth, Gene Expression, and Aflatoxin Synthesis in *Aspergillus flavus*: RT-PCR Characterization. *Journal of Applied Microbiology*. Volume 94(6)
- Cuero, R., D. McKay, and A. Ellis. 2003. Autotrophic Bacteria as the Interface Between Inorganic and Organic. American Society for Microbiology. 103rd General Meeting. Washington, DC. May 16-22, 2003. Abstract.
- Cuero, R. 2003. Life on Mars: Use of electrosensors and computer simulation. Vol. 7:238-239 September, 2003. GIT Verlag, A Wiley Company.
- Cuero, R. and T. Ouellet. 2004. Metal ions modulate gene expression and production of aflatroxin and zearalenone and their effect on enzymes for mycotoxin synynthesis. Abstract. IUPAC Symposium, 2004. Bethesda Maryland. May, 2004

- Cuero, R. and T. Ouellet. 2004. Metal ions Modulate Gene Expression and Accumulation of the Mycotoxins Aflatoxin and Zearalenone. *Journal of Applied Microbiology*. Vol. 98: 598-605
- Cuero, R. 2004. Use of Martian simulant soil for decontamination of Earth. Houston Chronicle Press. May, 2004
- Cuero, R., and D. McKay. 2004. Microbial Biogenesis in Ferromagnetic Reduced Martian Simulant Soil, Under UV Light: Use of Electrosensors. *Extremophiles 2004. International Conference on Extremophiles*. September 19-23, 2004. Cambridge, Maryland. Abstract #145
- Cuero R, and T. Ouellet. 2005. Metal Ions and Microbial Gene Expression:: Effect on Animal Feed. *Scientific Review. World Feed Association. Feedinfo. Electronic version (11/15/2005)*.
<http://www.feedinfo.com/console/PageViewer.aspx?page=348505&source=>
- Cuero, R, D. McKay, M. Ribeiro, C. Cruz, E. Duffus. 2005. Simulated Biogenesis In Extreme Conditions, Using Martian Simulant Soil and Electrosensors. Abstract. ASM-ISSM Conference. 13-19 August, 2005. Jackson Hole, WY.
- Cuero, R, and T. Ouellet. 2005. Enhancement of Genetic Molecular Expression by Mineral Ions in Microbial Cells, and its Effect at the Cellular Level. *FEEDINFO. Scientific Reviews*. November, 15, 2005.
- Cuero, R. 2005. Metal Ions and their effect of Mycotoxin Production: Study at the molecular level. Abstract. Brazilian International Conference of Microbiology. Abstract. October, 2005.
- Cuero, R. 2005. Extraterrestrial Biogenesis: Life Between Inorganic and Organic. Abstract. Brazilian International Conference of Microbiology. Abstract, October, 2005.
- BOOK: 2004. R. Cuero. "Between Triumph and Survival". American Binding and Publishing. Corpus Christi. 392 pages.
- Quinterro, A., S. Garcia, C. Guevara, C. Rincon, C. Ospina, P. Guevara, and R. CUERO. 2007. A microbial biosensor device for iron detection under UV irradiation. Vol. 1 (1-2): pp 71-73. *IET Synth Biol*.
- Cuero, R, and J. Lilly. 2009. Metabolic Parts Network, as Sensor for Metals. *Advances in Synthetic Biology*. Poster. University of London. England. April 27-29, 2009
- Cuero, R et al. 2011. Microbial Biosensor for detecting Heavy Metals: A Synthetic Biology Approach. *SynBERC-NSF Conference*. Berkeley University. February, 2011. Poster
- Cuero, R. 2011. Synthetic Biology. Keynote Speaker. World DNA Congress. Dalian, China. 2011
- Cuero, R, Mckay. D. 2013. "Induction and Construct UV Protective Yeast Plasmid", *Journal Of Biotechnology (Elsevier)*. Volume 166, Issue 3, 10 July 2013, Pages 76-83.
<http://www.sciencedirect.com>
- Cuero, R. et al. 2012. "Constructed molecular sensor to enhance metal detection by bacterial ribosomal switch-ion channel protein interaction". *Journal of Biotechnology (Elsevier)*. Vol 158 (12012): 1-7
- Cuero. R. 2013. "DNA sensors for predicting diabetes: International Conference on Integrative Biology. 5/08/2013. Las Vegas, USA. A synthetic biology approach".

Cuero. R., Vázquez. D. 2013. “Alzheimer: Production of beta amyloid”. International Conference on Integrative Biology. 5/08/2013. Las Vegas, USA.

Cuero. R., Gutiérrez. N. 2013. “Secondary metabolites production: Use International Conference on Integrative Biology. 5/08/2013. Las Vegas, USA. of integrative biology”.

Cuero. R., Sánchez. M. 2013. “PCR without heat: Enhancement of DNA function”. International Conference on Integrative Biology. 5/08/2013. Las Vegas, USA

Cuero. R., Russi. J. 2013. “Quantum sensor for petroleum detection”. International Conference on Integrative Biology. 6/08/2013. Las Vegas, USA.

Cuero. R., Melo. G. 2013. “Novel development of biological foam”. International Conference on Integrative Biology. 6/08/2013. Las Vegas, USA.

Cuero, R. 2013. DNA sensors for predicting diabetes: A synthetic biology approach. International Conference on Integrative Biology Summit, Las Vegas, August 5-7, 2013. See more: <http://www.omicsgroup.com/conferences/integrative-biology-summit-2013/scientific-programme.php>