References

Abegaz BM (2002). Novel phenylanthroquinones, isofuranonaphthoquinones, homoisoflavonoids, and biflavonoids from African plants in the genera *Bulbine*, *Scilla*, *Ledebouria*, and *Rhus*. Phytochem. Rev. 1: 299-310.

Abegaz BM, Bezabih M, Msuta T, Brun R, Menche D, Muhlbacher J, Bringmann G (2002). Gaboroquinones A and B and 4'-O-demethylknipholone-4'-O-ß-D-glucopyranoside, phenylanthraquinones from the roots of *Bulbine frutescens*. J. Nat. Prod. 65(8): 1117-1121.

Alam G (2003). IPRs, access to seed and related issues: A study of the Central and North-Eastern Himalayan region. Centre for Sustainable Development, Dehradun.

Ali AA, Alqurainy F (2006). Activities of antioxidants in plants under environmental stress. In: Motohashi N (ed.), The lutein-prevention and treatment for diseases. Transworld Research Network, India, pp. 187-256.

Ali MB, Hahn E, Paek K (2005). Effects of temperature on oxidative stress defense systems, lipid peroxidation and lipoxygenase activity in *Phalaenopsis.* Plant Physiol. Biochem. 43(3): 213-223.

Allen RD (1995). Dissection of oxidative stress tolerance using transgenic plants. Plant Physiol. 107: 1049-1057.

Almeida-Cortez J, Shipley B, Arnason JT (2003). Effects of nutrient availability on the production of pentaynene, a secondary compound related to defense, in Rudbeckia hirta. Plant Spec. Biol. 18(2-3): 85–89.

Almeselmani M, Deshmukh PS, Sairam RK, Kushwaha SR, Singh TP (2006). Protective role of antioxidant enzymes under high temperature stress. Plant Sci. 171: 382-388.

Alves A.C, Setter TL (2000). Response of cassava to water deficit: Leaf area growth and abscisic acid. Crop Sci. 40: 131–137.

Association for African Medicinal Plants Standards (AAMPS) (2010). African medicinal plant standards. In Brendler T, Eloff JN, Gurib-Fakim A, Phillips LD (Eds.), African Herbal Pharmacopoeia.

Aumeeruddy-Thomas Y (1998). Knowledge of the amchis and conservation of medicinal plants in the hidden land of Dolpo, Nepal. People and Plants Asia, Himalaya's Programme. Website: http://www.rbgkew.org.uk/peopleplants

Azaizeh H, Ljubuncic P, Portnaya I, Said O, Cogan U, Bomzon A (2005). Fertilization-induced changes in growth parameters and antioxidant activity of medicinal plants used in traditional Arab medicine. Ecam Advances Access, Oxford University Press.

Aziz EE, Hendawi ST, Aza EED, Omer EA (2008). Effects of soil type and irrigation intervals on plant growth, essential oil yield and constituents of *Thymus vulgaris* plant. Amer-Eurosian J. Agric & Environ. Sci. 4(4): 443-447.

Babu N, Devaraj VR (2008). High temperature and salt response in French bean (*Phaseolus vulgaris*). Aust. J. Crop Sci. 2(2): 40-48.

Baher ZF, Mirza M, Ghorbanli M, Rezaii MB (2002). The influence of water stress on plant height, herbal and essential oil yield and composition in *Satureja hortensis* L. Flav. Frag. J. 17 (4): 275-277.

Banchio E, Valladares G, Zygadlo J, Bogino PC, Rinaudi LV, Giordano W (2007). Changes in composition of essential oils and volatile emissions of *Minthostachys mollis*, induced by leaf punctures of *Liriomyza huidobrensis*. Biochem. Syst. Ecol. 35: 68-74.

Begue WJ, Kline RM (1972). The use of tetrazolium salts in bioautographic procedures. J Chromatogr. 64: 182-184.

Bizimenyera ES, Aderogba MA, Eloff JN, Swan GE (2007). Potential of neuroprotective antioxidant-based therapeutics from *Peltophorum Africanum* Sond.(Fabaceae). Afr. J. Tradit. Complement. Altern. Med. 4(1): 99–106.

Black CC, Chen TM, Brown RH (1969). Biochemical basis for plant competition. Weed Sci. 17: 338–344.

Blanco JA (2009). Modelling allelopathy at ecosystem scale. Agricultural and Biological Sciences Forestry. Ecological Modelling.

Bodeker G, Bhat KKS, Burley J (1997). Medicinal plants for forest conservation and health care. FAO, Rome. Non-wood Forest Products no. 11.

Brendler T, Eloff JN, Gurib FA, Phillips D (2010). African Herbal Pharmacopoeia. AAMPS publishing, Mauritius. ISBN 13: 9789990389098.

Brown RW (1995). The water relations of range plamts: Adaptations of water deficits. In Bedunah DJ, Sosebe RE (eds.). Wildland plants: Physiological ecology and developmental morphology. Society for Range Management. Denver, CO. pp. 291-299.

Burbidge R B (1978). A revision of the genus *Tulbaghia*. Notes from the Royal Botanic Garden (Edinburgh). 36(1): 77-103.

Burt S (2004). Essential oils: Their bacteria properties and potential applications in foods. International. J. Food Microbiol. 94: 223-253.

Canter PH, Thomas H, Ernst E (2005). Bringing medicinal plants into cultivation: opportunities and challenges for biotechnology. In Review: *Trends in Biotechnology*, Elsevier Ltd, pp. 180–181.

Cavaliere C (2009). The effects of climate change on medicinal and aromatic plants. J. Amer. Botan. Council (HerbalGram). 81: 44-57.

Charles DJ, Simon JE, Shock CC, Feibert EBG, Smith RM (1993). Effects of water stress and post-harvest handling on artemisinin content in the leaves of Artemesia annnua L. In Janick J, Simon JE (eds), New Crops. Wiley, New York. pp. 628 -629.

Chaves MM, Pereira JS, Maroco J, Rodriques ML, Ricardo CPP, Osorio ML, Carvalho I, Faria T, Pinheiro C (2002). How plants cope with water stress in the field? Photosynthesis and growth. Ann. Bot. 89: 907–914.

Cocks ML, Dold AP, Grundy IM (2004). The trade in medicinal plants from forests in the Eastern Cape province. In: Lawes MJ, Eeley HAC, Shackleton CM (eds), Indigenous forests and woodlands in South Africa: policy, people and practice. University of KwaZulu-Natal Press, Scottsville, pp. 473-492.

Council on Health Research for Development (COHRED), New Partnership for Africa's Development (NEPAD) (2009). Strengthening pharmaceutical innovation in Africa - Designing strategies for national pharmaceutical innovation: Choices for decision makers and countries. COHRED & NEPAD.

Cunningham AB (1989). Ethnobotany: Why it's so important? In: Our Living World, No. 17, Weekend Argus, WWF, press, pp. 7.

Cunningham AB (1994). Management of medicinal plant resources. In *Proceedings of the 13th Plenary Meeting of AETFAT*, Zomba, Malawi, 2-11 April 1991, Vol. 1. pp 173-173.

Cunningham AB (2001). Applied ethnobotany. People, wild plant use and conservation. In People and Plants Conservation Manuals. London, EarthScan

De Abreu IN, Mazzafera P (2005). Effect of water and temperature stress on the content of active constituents of *Hypericum brasiliense* Choisy. Plant Physiol. Biochem. 43(3): 241-248.

Dery BB, Otsyina R, Ng'atigwa C (1999). Indigenous knowledge of medicinal trees and setting priorities for their domestication in Shinyanga Region, Tanzania. International Centre for Research in Agroforestry, Nairobi, Kenya. ISBN 92 9059 133 I.

Dixon RA, Paiva NL (1995). Stress-induced phenylpropanoid metabolism. Plant Cell. 7: 1085-1097.

Dold AP, Cocks ML (2002). The trade in medicinal plants in the Eastern Cape Province, South Africa. S. Afr. J. Sci. 98: 589-597.

Dorman HJD, Deans SG (2000). Antimicrobial agents from plants: Antibacterial activity of plant volatile oils. J. Appl. Microbiol. 88: 308-316.

Downes RW (1969). Differences in transpiration rates between tropical and temperate grasses under controlled conditions. Planta. 88(3): 261–273.

Drennan PM, Nobel PS (2000). Responses of CAM species to increasing atmospheric CO_2concentrations. Plant Cell Environ. 23(8): 767–781

Dubey NK, Kumar R, Tripathi P (2004). Global promotion of herbal medicine: India's opportunity. Current Sci 86(1): 37–41.

Dunford NT, Vazquez RS (2005). Effect of water stress on plant growth and thymol and carvacrol concentrations in Mexican oregano grown under controlled conditions. J. Agric. Appl. 7(1): 20-22.

Dyson A (1998). Discovering indigenous healing plants of the herb and fragrance gardens at Kirstenbosch, National Botanical Garden, National Botanical Institution, Cape Town.

Economakis C, Skaltsa H, Demetzos C, Sokovic M, Thanos CA (2002). Effect of phosphorus concentration of nutrient solution on the volatile constituents of leaves and bracts of *Origanum dictamnus*. J. Agr. Food Chem. 50: 6276-6280.

Efeoglu B (2009). Heat shock proteins and heat shock response in plants. G.U. J. Sci. 22(2): 67-75.

Eloff JN (1998a). Which extractant should be used for the screening and isolation of antimicrobial components from plants? J. Ethnopharmacol. 60: 1-8.

Eloff JN (1998b). A sensitive and quick microplate method to determine the minimal inhibitory concentration of plant extracts for bacteria. Planta. Med. 64: 711-714.

Eloff JN (1999). The antibacterial activity of the 27 southern African members of the Combretaceae. S. Afr. J. Sci. 95: 148–152.

Eloff JN (2000). A proposal on expressing the antibacterial activity of plant extracts - a small first step in applying scientific knowledge to rural primary health care in South Africa. S. Afr. J. Sci. 96: 116-118.

Eloff JN (2001). Antibacterial activity of Marula (*Sclerocarya birrea* (A. Rich) Hochst. Subsp. caffra (Sond.) Kokwaro) (Anacardiaceae) bark and leaves. J. Ethnopharmacol. 76: 305-308.

Eloff JN (2004). Quantifying the bioactivity of plant extracts during screening and bioassay-guided fractionation. Phytomed. 11: 370-371.

Eloff JN (2010). Die groot verskil in chemiese samestelling en antibakteriese aktiwiteit van twee na-verwante *Leonotis* spesies (Lamiaceaea) mag taksonomiese waarde hê. S. Afr. tydskr. natuurwet. tegnol. 29: 30-38.

Eloff JN, Jager AK, Van Staden J (2001). The stability and the relationship between anti-inflammatory activity and antibacterial activity of southern African *Combretum* species. S. Afr. J. Sci. 97: 291-292.

Eloff JN, Masoko P, Picard I (2007). Resistance of animal fungal pathogens to solvents used in bioassays. S. Afr. J. Bot. 73: 667-669.

Fennel CW, Light ME, Sparg SG, Stafford GI, Van Staden J (2004). Assessing African medicinal plants for efficacy and safety: Agricultural and storage practices. J. Ethnopharmacol. 95: 113-121.

Fernandez JE, Moreno F (1999). Water use by the olive tree. J. Crop Prod. 2: 101-162.

Ferreira RR, Fornazier RF, Vitoria AP, Lea PJ, Azevedo RA (2002). Changes in antioxidant enzyme activities in soyabean under cadmium stress. J. Plant Nutr. 25(2): 327-342.

Fischer RA (1984). Physiological limitations to producing wheat in semi-tropical and tropical environments and possible selection criteria. In: Wheats for more tropical environments. A proceeding of International Symposium, Mexico, pp. 209-226.

Fluck H (1955). The influence of climate on the active principles in medicinal plants. J. Pharmacol. 7: 361-372.

Fyhrquist P, Mwasumbi L, Haeggstrom CA, Vuorela H, Hiltunen R, Vuorela P (2002). Ethnobotanical and antimicrobial investigation of some species of *Terminalia* and *Combretum* (Combretaceae) growing in Tanzania. J. Ethnopharmacol. 79:169-177.

Gamble PE, Burke JJ (1984). Effect of water stress on chloroplast antioxidant system. 1. Alterations in glutathione reductase activity. Plant Physiol. 76: 615-617.

GenStat® for Windows® (2003). Introduction. In *Payne RW (Ed.), 7th Edition, VSN International, ISBN 1-904375-08-1.*

Gershenzon J (1984). Phytochemical adaptations to stress: Recent advances in phytochemistry,

Timmerman, B.N., Steelnik, C., Loewus, F.A. (Eds.), Plenum Press, New York, 18.

Gillmer M, Symmonds R (1999). Seed collection and germination: *Hypoxis hemerocallidea*. Plantlife 21: 36-37.

Gomez-del-Campo M (2007). Effect of water supply on leaf area development, stomatal activity, transpiration, and dry matter production and distribution in young olive leaves. Austr. J. Agr. Res. 58: 385-391.

GTZ (2001). Medicinal plants: Biodiversity for health care. Biodiversity Issue Papers. http://www.gtz.de./biodiv

Guo HB, Song ZP, Liang ZS, Zhang YJ (2009). Domestic cultivation may abate the contradiction between sustainable utilization and genetic diversity conservation of medicinal plants, J. Medic. Plan. Res. 3(13): 1184-1187.

Hamburger MO, Cordell GA (1987). A direct bioautography TLC assay for compounds possessing antibacterial activity. J. Nat. Prod. 50: 19-22.

Harris S (2004). *Tulbaghia violacea*. Free State National Botanical Garden, South Africa.

Hertwig B, Streb P, Feierabend J (1992). Light dependence of catalase synthesis and degradation in leaves and the influence of interfering stress conditions. Plant Physiol. 100: 1547-1553.

Hines DA, Eckman K (1993). Indigenous multipurpose trees of Tanzania: Uses and economic benefits for people. Ottawa, Ontario, Canada. ISBN 0-9697075-0-9.

Hoareau L, DaSilva EJ (1999). Medicinal plants: A re-emerging health aid. Electr. J. Biotechnol. 2(2): 56-57.

Hutchings A (2002). Turning to nature in AIDS battle: Herbal ,medicines could help. In*: Pretoria News.*

Hutchings A, Scott AH, Cunningham AB (1996). Zulu medicinal plants: An inventory. Pietermaritzburg, University of Natal Press.

Hutchings A, van Staden J (1994). Plant used for stress-related ailments in traditional Zulu, Xhosa and Sotho medicine. Par 1: Plants used for headaches. J. Ethnopharmacol. 43: 89–124.

Huxley A (1984). Green inheritance. In: Hoseason E, Bailey J (Eds.), The World Wildlife Fund Book of Plants, Gaia Books Ltd, London, Collins Harvill, 8 Grafton Street, London W1, pp. 113-129.

Iqbal S, Bano A (2009). Water stress induced changes in antioxidant enzymes, membrane stability and seed protein profile of different wheat accessions. Afr. J. Biotechnol. 8(23): 6576-6587.

Jabeen R, Shahid M, Jamil A, Ashraf M (2008). Microscopic evaluation of the antimicrobial of seed extracts Moringa oleifera. Pakistan. J. Bot. 40(4): 1349-1358.

Jahangir M, Abdel-Farid IB, Kim HK, Choi YH, Verpoorte R (2009). Healthy and unhealthy plants: The effect of stress on the metabolism of Brassicaceae. J. Environ. Exp. Bot. 67(1): 23-33.

Joffe P (1993). The gardener's guide to South African plants, Table Mountain Publishers, Cape Town.

Joubert E, Manley M, Gray BR, Schulz H (2005). Rapid measurement and evaluation of the effect of drying conditions on Harpogoside content in *Harpagophytum procumbens* (Devil's claw) root. J. Agric. Food Chem. 53(9): 3493-3502

Kalapos T, van den Boogaard R, Lambers H (1996). Effect of soil drying on growth, biomass allocation and leaf gas exchange of two annual grass species. Plant Soil 185: 137–149.

Katerere DR, Eloff JN (2008). Antibacterial and anti-oxidant activity of *Hypoxis hemerocallidea* (Hypoxidaceae): Can leaves be substituted for corms as a conservative strategy? S. Afr. J. Bot. 74(4): 613-616.

Keirungi J, Fabricius JC (2005). Selecting medicinal plants for cultivation at Nqara on the Eastern Cape Wild Coast, South Africa. S. Afr. J. Sci. 101: 497-501.

Khalil SI, El-Bassiouny HMS, Hassanein RA, Mostafa HA, ElKhawas SA, El-Monem AAA (2009). Antioxidant defense system in heat shocked wheat plants previously treated with arginine or putrescine. Aust. J. Basic Appl. Sci. 3(3): 1517-1526.

Khan TA, Mazid M, Mohammad F. (2011). Review: Status of secondary plant products under abiotic stresss: An overview. J. Stress Physiol. Biochem. 7(2): 75-98.

Kirakosyan A, Kaufman P, Warber S, Zick S, Aaronson K, Bolling S, Chang SC (2004). Applied environmental stresses to enhance the levels of polyphenolics in leaves of hawthorn plants. Physiol. Planta. 121: 182-186.

Kirnak H, Kaya C, Tas I, Higgs D (2001). The influence of water deficit on vegetative growth, physiology, fruit yield and quality in eggplants. Bulg. J. Plant Physiol. 27(3&4): 34-35.

Kotze M, Eloff JN (2002). Extraction of antibacterial compounds from *Combretum microphyllum* (Combretaceae). S. Afr. J. Bot. 68: 62-67.

Kuipers SE (1995). Trade in medicinal plants. In: Bodeker G, Bhat KKS, Burley J, Vantomme P (eds.), Medicinal plants for conservation and health care – Rome. FAO (Non Wood Forest Prodiucts 11). www.fao.org

Kujawski RF (2002). Long term drought effects on trees and shrubs. University of Massachusetts Amherst, Massachusetts.

Kusaka M, Lalusin AG, Fujimura T (2005). The maintenance of growth and turgor in pearl millet (*Pennisetum glaucum* L. Leeke) cultivars with different root structures and osmo-regulation under drought stress. Plant Sci. 168: 1-14.

La Cock GD, Briers JH (1992). Bark collecting at Tootabie Nature Reserve, Eastern Cape, South Africa. S. Afr. J. Bot. 58: 505-508.

Larcher W (2001). Physiological plant ecology: Ecophysiology and stress physiology of functional groups, fourth ed. Springer Verlag, Berlin Heidelberg, Germany, pp. 411-414.

LI-COR Biosciences (2004). LI-3100C area meter: Instruction manual. LI-CO, 4421 Superior St, Lincoln, USA.

Lindsey KL, Van Staden J (2004). Growth inhibition of plant pathogenic fungi by extracts of *Allium sativum* and *Tulbaghia violacea*. S. Afr. J. Bot. 70(4): 671–673.

Liu X, Huang B (2002). Cytokinin effects on creeping bentgrass responses to heat stress. II. Antioxidant enzyme activities and lipid peroxidation. Crop Sci. 42: 466-472.

Luseba D, Letsoalo ME, Katerere D (2011). A comparative study of antibacterial activities of wild and cultivated plants used in ethnoveterinary medicine. Afr. J. Biotech. 10(36): 7058-7062.

Luvaha E, Netondo GW, Ouma G (2008). Effect of water deficit on the physiological and morphological characteristics of mango (*mangifera indica*) rootstock seedlings. Am. J. Plant Physiol. 3(1): 1-15.

Lyantagaye SSL, Rees DJG (2003). Screening *Tulbaghia violacea* extracts for the presence of apoptotic compounds. In: ISE News Letter, 3(1).

Maltas E, Yildiz S (2011). Evaluation of Phytochemicals and Antioxidant Activity of *Ginkgo biloba* from Turkey. Pharmacol. 3: 113-120.

Mander M (1997). Medicinal plant marketing and strategies for sustaining the plant supply in Bushbuckridge area and Mpumalanga Province. DANCED-Community Forestry Project in Bushbuckridge area, South Africa.

Mander M (1999). Marketing of indigenous medicinal plants in South Africa: A case study in KwaZulu-Natal. Food and Agricultural Organisation of the United Nations, Forest Products Division, Rome.

Mander M, Ntuli L, Diederichs N, Mavundla K (2007). Economics of the traditional medicine trade in South Africa. Future Works Report for Ezomvelo KZN Wildlife, South Africa.

Manske LL (1998). Environmental factors to consider during planning of management for range plants in the Dickinson, North Dakota, refion, 1892-1997. NDSU Dickinson Research Extension Center. Range Research Report DREC 98-1018. Dickinson, ND, pp. 36.

Masoko P, Eloff JN (2006). Bioautography indicates the multiplicity of antifungal compounds from twenty-four southern African Combretum species (Combretaceae). Afr. J. Biotechnol. 5: 1625-1647.

Masoko P, Eloff JN (2007). Screening of twenty-four South African *Combretum* and six *Terminalia* species (Combretaceae) for antioxidant activities, Afr. J. Trad. CAM. 4(2): 231-239.

Masoko P, Mmushi TJ, Mogashoa MM, Mokgotho MP, Mampuru LJ, Howard RL (2008). *In vitro* evaluation of the antifungal activity of *Sclerocarya birrea* extracts against pathogenic yeasts. Afr. J. Biotechnol. 7(20): 3521-3526.

Masoko P, Picard J, Eloff JN (2005). Antifungal activity of six South African *Terminalia* species (Combretaceae). J. Ethnopharmacol. 99: 301-308.

McChesney JD (1999). Quality of botanical preparations: Environmental issues and methodology for detecting environmetal contaminants. In: Eskinazi D (ed.), Botanical Medicine: Efficacy, quality assurance and regulation. Mary Ann Liebert, Incl. publishers, pp. 127-130.

McCune LM, Johns T (2007). Antioxidant activity relates to plant part, life form and growth condition in some diabetes remedies. J. Ethnopharmacol. 112(3): 461-465.

McGaw LJ, Jager AK, Van Staden J (2000). Antibacterial, anthelmintic and anti-amoebic activity in South African medicinal plants. J. Ethnopharmacol. 72: 247-263.

Mensor LL, Menezes FS, Leitao GG, Reis AS, Santos TC, Coube CS, Leitao SG (2001). Screening of Brazilian plants for antioxidant activity by use of DPPH free radical method. Phytother. Res. 15: 127-130.

Michalak A (2006). Phenolic compounds and their antioxidant activity in plants growing under heavy metal stress. Pol. J. Environ. Stud. 15(4): 523-530.

Mittler R, Zilinskas MB (1994). Regulation of pea cytosolic ascorbate peroxidase and other antioxidant enzymes during the progression of drought stress and following recovery from drought. Plant J. 5: 397-405.

Mostajeran A, Rahimi-Eichi V (2009). Effects of drought on growth and yield of rice (*Oryza sativa* L.) cultivars and accumulation of praline and soluble sugars in sheath and blades of their different ages leaves. American-Eurasian J. Agr. & Environ. Sci. 5(2): 264-271.

Motsei ML, Lindsey KL, Van Staden J, Jager AK (2003). Screening of traditionally used South African plants for antifungal activity against *Candida albicans*. J. Ethnopharmacol. 86: 235-241.

Muok BO, Matsumura A, Ishii T, Odee DW (2007). Genetic diversity within within *Sclerocarya birrea* populations in Kenya. J. Arid. Environ. 71(1): 1-11.

Nagesh BR, Devaraj VR (2008). High temperature and salt stress response in French bean (*Phaseolus vulgaris*). Aust. J. Crop Sci. 2(2): 40-48.

Nair VDP, Kanfer I (2008). Sterols and sterolins in *Hypoxis hemerocallidea* (Africa potato). S. Afr. J. Sci. 104: 322-324.

Navari-Izzo F, Rascio N (1999). Plant response to water deficit. In: *Pessaraklei M (Ed.)*, Handbook of plant and crop stress, second ed. Eastern Hemisphere Distribution, Switzerland.

Ncube B, Finnie JF, Van Staden J (2011). Seasonal variation in antimicrobial and phytochemical properties of frequently used medicinal bulbous plants from South Africa. S. Afr. J. Bot. 77(2): 387-396.

Netshiluvhi TR (1999). Demand, propagation and seedling establishment of selected medicinal trees of KwaZulu-Natal. S. Afr. J. Bot. 65(5&6): 331-333.

Nteso L, Pretorius JC (2006). *Tulbaghia violacea* L. I. In vitro antimicrobial properties towards plant pathogens. CSIRO. Aust. J. Agr. Res. 57(5): 511-513.

Odda J, Kristensen S, Kabasa J, Waako P (2008). Larvicidal activity of *Combretum collinum* Fresen against *Aedes aegypti*. J. Vector. Borne Dis. 45:321-324.

Osborne R, Grove A, Oh P, Mabry TJ, Ng JC, Seawright AA (1994). The magical and medicinal usage of Stangeria eriopus in South Africa. J. Ethnopharmacol. 43: 67-69.

Osuagwu GGE, Edeoga AN, Osuagwu AN (2010). The influence of water stress (drought) on the mineral and vitamin potential of the leaves of *Ocimum gratissimum* L. Ethnomed. Pharm. Pharmacol. 2(2): 27-33.

Palgrave KC (1985). Trees of Southern Africa, 2nd Edition. Struik Publication, Cape Town.

Panchuk II, Volkov RA, Schoffl F (2002). Heat stress and heat shock transcription factor-dependent expression and activity of ascorbate peroxidase in *Arabidopsis*. Plant Physiol. 129: 838-853.

Patel VR, Patel PR, Kajal SS (2010). Antioxidant activity of some selected medicinal plants in Western Region of India. Adv. Biol. Res. 4(1): 23-26.

People and Plants (2002). Medicinal plant use in Africa: The role of traditional medical practitioners. Website:.http://www.rbgkey.org.uk/peopleplants

Planting S (2009). Roots to fruits. In: *Finacial Mail*. BDFM Publishers.

Plumbe A, Willmer CM (1985). Phytoalexins, water-stress and stomata: Do phytoalexins accumulate in leaves under water-stress? New Phytol. 101(2): 269-273.

Principe P (1991). Valuing the biodiversity of medicinal plants. In *The conservation of medicinal plants*. Akerele O, Heywood V, Synge H (Eds.), Cambridge: Cambridge University Press, pp. 79-124.

Rajakaruna N, Harris CS, Towers GHN (2002). Antimicrobial activity of plants collected from Serpentine ourcrops in Sri Lanka. Pharm. Biol. 40(3): 235-241.

Ramadoss M, Birch CJ, Carberry PS, Robertson M (2008). Water and high temperature stress effects on maize production. In: Proceedings of 5th International Crop Science Congress, Adelaide, South Australia.

Rani B, Dhawan K, Jain V, Chhabra ML, Singh D (In Press). High temperature induced changes in antioxidative enzymes in *Brassica juncea* (L) Czern & Coss.

Raven J, Edwards D (2001). Roots: Evolutionary origins and biogeochemical significance. J. Exp. Bot. 52: 381-401.

Re R, Pellegrini N, Proteggente A, Pannala A, Yang M, Rice-Evans CA (1999). Antioxidant activity applying an improved ABTS radical cation decolourising assay. Free Radic. Biol. Med. 26: 1231-1237.

Rios JL, Recio MC, Villar A (1988). Screening methods for natural products with antimicrobial activity: A review of the literature. J. Ethnopharmacol. 23: 127-149.

Robinson JM, Bunce JA (2000). Influence of drought induced water stress on soybean and spinach leaf ascorbate-dehydroascorbate level and redox status. Int. J. Plant Sci.161(2): 271-279.

Rojas JJ, Ochoa VJ, Ocampo SA, Munoz JN (2006). Screening for antimicrobial activity of ten medicinal plants used in Columbia folkloric medicine: A possible alternative in the treatment of non-nosocomial infections. BMC, Compl. Altern. Med. 6: 2.

Rowson JM, Hans F (1973). Medicinal plants. Foulshan & Co. Ltd, England.

Sacho H, Schoub DB (1993). Current perspectives on nosocomial infections, Natal Witness Printing and Publishing, Pietermaritzburg, pp. 100.

Said-Al AHAH, Ayad H, Hendawy SF (2009). Effects of potassium humate and nitrogen fertilizers on herb and essential oil of Oregano under different irrigation intervals. J. Appl. Sci. 2(3): 319-323.

Sathisha AD, Lingaraju HB, Prasad KS (2011). Evaluation of antioxidant activity of medicinal plant extracts produced for commercial purpose. E-J. Chem. 8(2): 882-886.

Schippmann U, Leaman DJ, Cunningham AB (2002). Impact of cultivation and gathering of medicinal plants on biodiversity: Global trends and issues. In: *Inter-Departmental Working Group on Biological Diversity for Food and Agriculture.* Biodiversity and the ecosystem approach in agriculture, forestry and fisheries: satellite event on the occasion of the ninth regular session of the Commission on Genetic Resource for Food and Agriculture, Rome. FAO, Rome. http://www.fao.org/

Schneider E, Sanders J, von Willert D (2006). Devil's claw (Harpagophytum procumbens) from southern Africa: Sustainable use by cultivation combined with controlled harvesting in semi-wild populations. In: Bogers RJ, Craker LE, Langer D (eds.), Medicinal and Aromatic Plants, pp. 181-195.

Shackleton CM (1999). Rainfall and topo-edaphic influences on woody community phenology in South African savannas. Glob. Ecol. Biogeogr. 8: 26-128.

Shackleton S, Shackleton CM, Cunningham T, Lombard C, Sullivan CA, Netshiluvhi TR (2002). Knowledge on *Sclerocarya birrea* subsp. *caffra* with emphasis on its importance as a non-timber forest product in South and southern Africa: A summary – Part 1: Taxonomy, ecology and role in rural livelihoods. S. Afr. Forest. J. 94: 27-41.

Sharp RE (2002). Interaction with ethylene: changing views on the role of abscisic acid in root and shoot growth responses to water stress. Plant Cell Environ. 25: 211–222.

Silori CS (2007). Perception of local people towards conservation of forest resources in Nanda Devi Biosphere Reserve, north-west Himalaya, India. J. Biodivers. Conserv. 16(1): 211-215.

Silori CS, Bado R (2000). Medicinal plant cultivation and sustainable development: A case study in the buffer zone of Nanda Devi Biosphere Reserve, Western Himalaya, India. Mt. Res.Dev. 20(3): 272-277.

Sinaki JM, Heravan EM, Rad ASH (2007). The effect of water deficit during growth stages of canola (*Brassica napus* L.). Am-Eurasian. J. Agr. Environ. Sci. 2(4): 417-420.

Souri E, Amin G, Frasam H, Barazandeh TM (2008). Screening of antioxidant activity and phenolic content of 24 medicinal plant extracts. DARU. 16(2): 83-86.

Stahl E (1969). Thin layer chromatography. Spring-Verlag, Berlin.

Steenkamp V, Gouws MC, Gulumian M, Elgorashi EE, Van Staden J (2006). Studies on antibacterial, anti-inflammatory and antioxidant activity of herbal remedies used in the treatment of benign prostatic hyperplasia and prostatitis. J. Ethnopharmacol. 103(1):71-75.

Sunderland TCH, Tako CT (1999). Gulf of Guinea Islands' Biodiversity Network: The exploitation of Prunus africana on island of Bioko, Equitorial Guinea. A report for the People and Plants Initiative, WWWF-Germany and the IUCN/SSC Medicinal Plant Specialist Group, pp. 4-6.

Takao T, Kitatani F, Watanabe N, Yagi A, Sakata K (1994). A simple screening method for antioxidants and isolation of several antioxidants produced by marine bacteria from fish and shellfish. Biosci. Biotechnol. Biochem. 58: 1780-1783.

Thamburan S, Klaasen J, Mabusela WT, Cannon JF, Folk W, Johnson Q (2006). *Tulbaghia alliacea* phytotherapy: a potential anti-infective remedy for candidiasis. Phytother. Res. 20(10): 844-850.

Turtola S, Manninen AM, Rikalaand, R, Kainulainen P (2003). Drought stress alters the concentration of wood terpenoids in Scots pine and Norway spruce seedlings. J. Chem. Ecol. 29: 1981-1995.

Van de Kope P, Alam G, Piters DDS (2006). Developing a sustainable medicinal-plant chain in India. In: Ruben R, Slingerland M, Nijhoff H (eds.), Agro-food chains and networks for development, pp. 1191-2002.

Van den Heever E, Allemann J, Pretorius JC (2007). Influence of nitrogen fertilizers on yield and antifungal bioactivity of *Tulbaghia violacea* L. Hum. Exp. Toxicol. 27(11): 851-857.

Van Staden LF, Drewes SE (1994). Knipholone from *Bulbine latifolia* and *Bulbine frutescens*. Phytochem. 35(3): 685-686.

Van Wyk B-E, Gericke N (2000). People's plants: A guide to useful plants of southern Africa. Briza Publications, Cape Town.

Van Wyk B-E, Van Oudtshoorn B, Gericke N (1997). Medicinal plants of South Africa. Briza Publications, Cape Town.

Van Wyk B-E, Yenesew A, Dagne E (1995). Chemotaxonomic significance of anthraquinones in the roots of Asphodeloideae (Asphodelaceae). Biochem. Syst. Ecol. 23(3): 277-281.

Vazquez SR, Dunford NT (2005). Bioactive components of Mexican oregano oil as affected by moisture and plant maturity. J. Essential Oil Res (In Press).

Vickery ML, Vickery B (1981). Secondary plant metabolism. The MacMillan Press Ltd, London, pp. 4-11.

Vinson JA, Hao Y, Su X, Zubic L (1998). Phenol oxidant quantity and quality in foods: Vegetables. J. Agric. Food Chem. 46: 3630-3634.

Wahid A, Gelani S, Ashraf M, Foolad MR (2007). Heat tolerance in plants: An overview. Environ.Exp. Bot. 61(3): 199-223.

Wan C, Yu Y, Zhou S, Liu W, Tian S, Cao S (2011). Antioxidant activity and free radical-scavenging capacity of *Gynura divaricata* leaf extracts at different temperatures. Pharmacogn. Mag. 7(25): 40-45.

Wang, S.Y., Zheng, W. (2001). Effect of Plant Growth Temperature on Antioxidant Capacity in Strawberry. Journal of Agriculture and Food Chemistry, 49(10): 4977-4982.

Watt JM, Breyer-Brandwijk MG (1962). Medicinal and poisonous plants of southern and eastern Africa. Second Edition, E. & S. Livingstone Ltd, Edinburgh and London.

Wiersum KF, Dold AP, Husselman M, Cocks M (2006). Cultivation of medicinal plants as a tool for biodiversity conservation and poverty alleviation in the Amatola region, South Africa. In: *Medicinal and aromatic plants*. Rogers RJ (ed.), Springer, Netherlands.

Williams KJ, Wilsey BJ, McNaughton SJ, Banyikwa FF (1998). Temporally variable rainfall does not limit yields of Serengeti grasses.

Wong KH, Sabaratnam V, Abdullah N, Kuppusammy UM, Naidu M, Keynes R (2007). Activity of aqueous extracts of lion's mane mushroom *Hericium erinaceus* (Bull.: FR) Pers. (Aphyllophoromycetideae) on the neural cell line NG108. Int. J. Med. Mushr. 9: 57-65.

Wong KH, Sabaratnam V, Abdullah N, Kuppusammy UM, Naidu M (2009). Effects of cultivation techniques and processing on antimicrobial and antioxidant activities of *Hericium erinaceus* (Bull.: FR) Pers. Extracts. Food Technol. Biotechnol. 47(1): 47-55.

World Bank Group (1997). Grant for conservation of medicinal plants in Sri Lanka. Press News Release.

Xiloyannis C, Dichio B, Nuzzo V, Celano G (2009). Defence strategies of olive against water stress. In: ISHS Acta Hortic 474: III International Symposium on Olive Growing.

Yordanov I, Velikova V, Tsonev T (2003). Plant responses to drought and stress tolerance. Bulg. J. Plant Physiol. (Special Issue) 187-206.

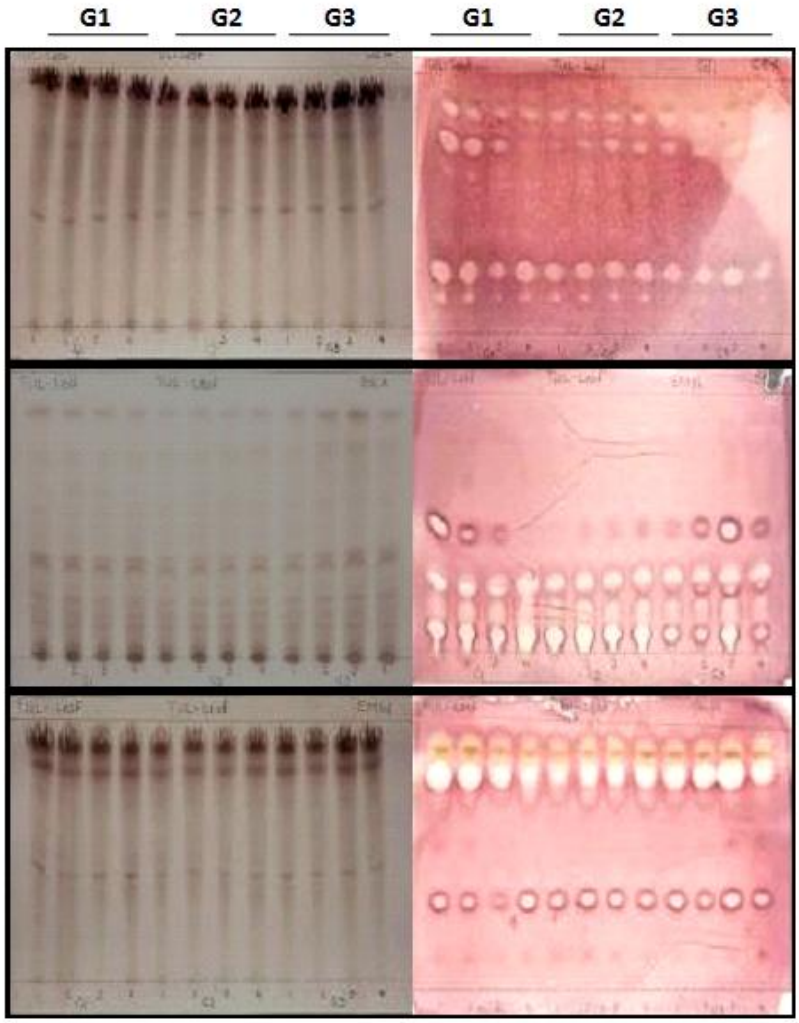
Yuan Q-J, Zhang Z-Y, Hu J, Guo L-P, Shao A-J, Huang L-Q (2010). Impacts of recent cultivation on genetic diversity of a medicinal plant, *Scutellaria baicalensis* (Lamiaceae). BioMed. Central Genet. 11: 29.

Zhang J, Jia W, Yang J, Ismail AM (2006). Role of ABA in integrating plant responses to drought and salt stresses. Field Crop Res. 97: 111-119.

Zobayed SMA, Afreen F, Kozai T (2005). Temperature stress can alter the photosynthesis efficiency and secondary metabolite concentrations in St. John's wort. Plant Physiol. Biochem. 43: 977–979.

Appendices

Appendix A. TLC chemical composition (left plates) and antimicrobial compounds (right plates) of *Tulbaghia violaceae* extracts separated by CEF (top), BEA (middle) and EMW (bottom) mobile systems under high (G1 = irrigating a 1000 ml of water every 3 days), medium (G2 = irrigating every 14 days) and low (G3 = irrigating every 21 days) water supply treatments against *Staphyloccocus aureus* (Chapter 3). Each of water supply treatments has four lanes of replicates.



Appendix B. TLC chemical composition (left plates) and antimicrobial compounds (right plates) of acetone extracts of *Leonotis dysophylla* subjected to different temperature (15 and 30˚C) and water supply treatments (50 – 500ml) developed in EMW (top), CEF (middle) and BEA (below) mobile systems against *Staphyloccocus aureus* (Chapters 4 and 5).