

## REFERENCES

1. Abalaka M, Oyewole OA, Kolawole AR. Antibacterial Activities of *Azadirachta Indica* against Some Bacterial Pathogens. *Advances in Life Sciences* 2012; 2(2): 5-8.
2. Abbasi PA, Cupples DA, Lazarovits G. Effect of foliar applications of neem oil and fish emulsion on bacterial spot and yield of tomatoes and peppers. *Canadian Journal of Plant Pathology* 2003; 25:41-48.
3. Abdel-Fattah GM and Al-Amri SM. Induced systemic resistance in tomato plants against *Fusarium oxysporum* f.sp. *lycopersici* by different kinds of compost. *African Journal of Biotechnology* 2012; Vol. 11(61), pp. 12454-12463.
4. Aboellil AH. Trilogy, a Product of Neem (*Azadirachta indica*) Induces Resistance in Cucumber against *Podosphaera xanthii*. *Research Journal of Microbiology* 2007; 2: 402-414.
5. Abo-Elyousr KA, Hussein MAM, Allam ADA, Hassan MH. Salicylic acid induced systemic resistance on onion plants against *Stemphylium vesicarium*. *Archives of Phytopathology and Plant Protection* 2009; Vol. 42, Iss. 11, 1042-1050.
6. Abo-Elyousr KAM, Hussein MAM, Allam ADA and Hassan MHA. Enhanced onion resistance against stemphylium leaf blight disease, caused by *Stemphylium vesicarium*, by Di-potassium phosphate and benzothiadiazole treatments. *The Plant Pathol. J.* 2008; 24: 171-177.
7. Aboshosha SS, Alla SIA, El-Korany AE, El-Argawy E. Protein analysis and peroxidase isozymes as molecular markers for resistance and susceptibility of sunflower to *Macrophomina phaseolina*. *International journal of agriculture & biology* 2008; 10: 28–34.
8. Agbenin NO, Emechebe AM and Marley PS. Evaluation of neem seed powder for *Fusarium* wilt and *Meloidogyne* control on tomato. *Arch Phytopathol Plant Pro.* 2004; 37(4): 319-326.
9. Ahl P and Gianinazzi S. b-Protein as a constitutive component in highly (TMV) resistant interspecific hybrids of *Nicotiana glutinosa* x *Nicotiana debneyi*. *Plant Science Letters* 1982; 26: 173–181.

10. Ahmed AA, Mahfouze SA and Sabry GH. Peroxidase isozyme polymorphism in Grape Cultivars infected by *Grapevine fan leaf virus* (GFLV) and *Tomato ring spot virus* (ToRSV). *Journal of American Science* 2012; 8(3): 674-687.
11. Ahmed S, Noor Zaman N and Salik Nawaz Khan SN. Management of root rot disease of groundnut (*Arachis hypogaeae* L.) by plant extracts. *African Journal of Microbiology* 2012; Research Vol. 6(21), pp. 4489-4494.
12. Ahn BT, Paulitz S, Jabaji-Hare and Watson A. Enzyme responses of *Abutilon theophrasti* in an enhanced biocontrol system. *BioControl* 2005; 50:803–817.
13. Ahn IP, Lee SW, Suh SC. Rhizobacteria-induced priming in Arabidopsis is dependent on ethylene, jasmonic acid, and NPR1. *Mol Plant Microbe Interact.* 2007; 20(7):759-68.
14. Ahrenholtz I, Harms K, De Vries J, Wackernagel W. Increased Killing of *Bacillus subtilis* on the Hair Roots of Transgenic T4 Lysozyme-Producing Potatoes. *Appl Environ Microbiol.* 2000; 66(5): 1862–1865.
15. Akinbode OA and Ikotun T. Efficacy of certain plant extracts against seed-borne infection of *Collectotrichum destructivum* on cowpea (*Vigna unguiculata*). *African Journal of Biotechnology* 2008; Vol. 7 (20), pp. 3683-3685.
16. Akram A, Ongena M, Duby F, Dommes F and Thonart P. Systemic resistance and lipoxygenase-related defence response induced in tomato by *Pseudomonas putida* strain BTP1. *Plant Biology* 2008; 8:113. doi: 10.1186/1471-2229-8-113.
17. Alcázar MD, Egea C, Espín A and Candela ME. Peroxidase isoenzymes in the defense response of *Capsicum annuum* to *Phytophthora capsici*. *Physiologia Plantarum* 1995; 94: 736–742.
18. Alexander D, Goodman RM, Gut-Rella M, Glascock C, Weymann K, Friedrich L, Maddox D, Ahl-Goy P, Luntz T, Ward E. Increased tolerance to two oomycete pathogens in transgenic tobacco expressing pathogenesis-related protein 1a. *Proc Natl Acad Sci* 1993; 90(15): 7327–7331.
19. Almagro L, Go´mez Ros LV, Belchi-Navarro S, Bru R, Ros Barcelo A and Pedren MA. Class III peroxidases in plant defence reactions. *Journal of Experimental Botany* 2009; Vol. 60, No. 2, pp. 377–390.
20. Amadioha AC. Controlling rice blast in vitro and in vivo with extracts of *Azadirachta indica*. *Crop Protection* Volume 2000; 19, Issue 5, Pages 287–290.

21. Amal KG, Cheng-Wu J, Bimal KG, Dong HC. Antioxidant activity and quantitative estimation of azadirachtin and nimbin in *Azadirachta Indica* A. Juss grown in foothills of Nepal. African Journal of Biotechnology 2009; 8(13), 3084-3091.
22. Anand T, Raguchander T, Karthikeyan G, Prakasam V, Samiyappan R. Chemically and biologically mediated systemic resistance in cucumber (*Cucumis sativus* L.) against *Pseudoperonospora cubensis* and *Erysiphe cichoracearum*. Phytopathologia Mediterranea 2007; Vol. 46, No. 3, pp. 259-271.
23. Ando K, Hammar S and Grumet R. Age-related Resistance of Diverse Cucurbit Fruit to Infection by *Phytophthora capsici*. J. Amer. Soc. Hort. Sci. 2009; 134(2):176–182.
24. Anfoka G, Buchenauer H. Systemic acquired resistance in tomato against *Phytophthora infestans* by pre-inoculation with tobacco necrosis virus. Physiological and Molecular Plant Pathology 1997; 50(2):85-101.
25. Aniszewski T, Lieberei R and Gulewicz K. Research on catecholases, laccases and cresolases in plants. Recent progress and future needs. Acta Biologica Cracoviensia Series Botanica 2008; 50(1): 7–18.
26. Arun K, Mali PC, Manga VK. Changes of some phenolic compounds and enzyme activities on infected pearl millet caused by *Sclerospora graminicola*. International Journal of Plant Physiology and Biochemistry 2010; 2(1):6-10.
27. Ashry NA, Mohamed HI. Impact of Secondary Metabolites and Related Enzymes in Flax Resistance and or Susceptibility to Powdery Mildew. World J. Agric. Sci. 2011; 7(1):78-85.
28. Azami-Sardoei Z, França SC, Vleeschauwer DD and Höfte M. Riboflavin induces resistance against *Botrytis cinerea* in bean, but not in tomato, by priming for a hydrogen peroxide-fueled resistance response. Physiological and Molecular Plant Pathology 2010; Volume 75, Issues 1–2, Pages 23–29.
29. Bach EB, Marcondes MCL, Patricio GF, Esquerdo KF, Cardoso V and Wadt NSY. Aqueous extract of leaves from *Bauhinia variegata* used in barley plants to protect against *Bipolaris sorokiniana*. Agricultural Research and Reviews 2012; Vol. 1(3), pp. 71–79.
30. Baidoo PK and AdamJI. The Effects of Extracts of *Lantana camara* (L.) and *Azadirachta indica* (A. Juss) on the Population Dynamics of *Plutella xylostella*, *Brevicoryne brassicae*

- 
- and *Hellula undalis* on Cabbage. Sustainable Agriculture Research 2012; Vol. 1, No. 2, 229-234.
31. Balestra GM, Heydari A, Ceccarelli D, Ovidi E and Quattrucci A. Antibacterial effect of *Allium sativum* and *Ficus carica* extracts on tomato bacterial pathogens. Crop Protection 2009; 28(10):807-811.
32. Bañuelos GR, Argumedo R, Patel K, Ng V, Zhou F and Vellanoweth RL. The developmental transition to flowering in *Arabidopsis* is associated with an increase in leaf chloroplastic lipoxygenase activity. Plant Sci. 2008; 174(3): 366–373.
33. Barone A, Chiusano ML, Ercolano MR, Giuliano G, Grandillo S and Frusciante L. Structural and Functional Genomics of Tomato. International Journal of Plant Genomics 2008; 10.1155/2008/820274.
34. Bashan Y, Okon Y, Henis Y. Peroxidase, polyphenoloxidase, and phenols in relation to resistance against *Pseudomonas syringae* pv. *tomato* in tomato plants. Can J Bot 1987; 65:366–372.
35. Bateman DF and Lumsden RD. Relationship of calcium content and the nature of the pectic substances in bean hypocotyls of different ages and susceptibility to an isolate of *Rhizoctonia solani*. Phytopathology 1965; 55:734–738.
36. Becker A, Vigo-Schultz SC, Stangarlin JR, Balbi-Peña MI, Klahold CA and Schwan-Estrada KRF. Alternative control of late season diseases and powdery mildew in bean. Fitopatologia Brasileira 2004; 29:163.
37. Belabid L, Simoussa L and Bayaa B. Effect of some plant extracts on the population of *Fusarium oxysporum* f. sp. *lentis*, the causal organism of lentil wilt. Advances in Environmental Biology 2010; 4(1):95-100.
38. Beintema JJ & Van Scheltinga ACT. Lysozymes--model enzymes in biochemistry and biology. Plant lysozymes. P. Jollès (Ed.). 1996; 75-86.
39. Benhamou N and Nicole M. Cell biology of plant immunization against microbial infection: The potential of induced resistance in controlling plant diseases. Plant Physiology and Biochemistry 1999; Volume 37, Issue 10, Pages 703–719.
40. Bernal MA, Pedreno MA, Calderon AA, Munoz R, Ros Barcelo A, Merino de Caceres F. The subcellular localization of isoperoxidases in *Capsicum annuum* leaves and their

- different expression in vegetative and flowered plants. *Annals of Botany* 1993; v. 72(5), p. 415-421.
41. Bhaduri AM and Fulekar MH. Antioxidant enzyme responses of plants to heavy metal stress. *Rev Environ Sci Biotechnol* 2012; 11:55–69.
  42. Bhuiyan M, Nishimura M, Matsumura S, Shimono T. Antibacterial effects of the crude *Azadirachta indica* Neem bark extract on *Streptococcus obovatus*. *Pediatr Dent J.* 1997; 7(1): 61-64.
  43. Bhuvaneshwari V. Molecular events during induction of Systemic Acquired Resistance in *Lycopersicon esculentum* by plant extracts against *Pseudomonas syringae* pv. *tomato*. PhD thesis. 2012; pages 224, Amity Institute of Biotechnology, Amity University, Noida, India.
  44. Bhuvaneshwari V and Paul PK. Transcriptional and translational regulation of defense enzymes induced by neem fruit extract in tomato. *Archives Of Phytopathology And Plant Protection* 2012; 45(12): 1374-1385.
  45. Bhuvaneshwari V, Srivastava AK and Paul PK. Aqueous fruit extracts of *Azadirachta indica* induce systemic acquired resistance in barley against *Drechslera graminea*, *Archives of Phytopathology And Plant Protection* 2012; 45:8, 898-908.
  46. Bindschedler LV, Dewdney J, Blee KA, Stone JM, Asai T, Plotnikov J, Denoux C, Hayes T, Gerrish C, Davies DR, Ausubel FM and Bolwell PG. Peroxidase-dependent apoplastic oxidative burst in Arabidopsis required for pathogen resistance. *The Plant Journal* 2006; 47: 851–863.
  47. Binyamin R, Khan MA, Ahmad N and Ali S. Relationship of epidemiological factors with urdbean leaf crinkle virus disease and its management using plant extracts. *Int. J. Agric. Biol.* 2011; 13: 411–414.
  48. Bogdanović J, Dučić T, Milosavić N, Vujčić Z, Šijačić M, Isajev V and Radotić K. Antioxidant Enzymes in the Needles Of different omorika lines. *Arch. Biol. Sci., Belgrade.* 2005; 57(4): 277-282.
  49. Boller T, Vögeli U. Vacuolar localization of ethylene-induced chitinase in bean leaves. *Plant physiology* 1984; 74(2): 442-444.
  50. Bonaldo SM, Schwan-Estrada KRF, Stangarlin JR, Tessmann D, Scapim CA. Fungitoxicity, phytoalexins elicitor activity and protection of cucumber against

- Colletotrichum lagenarium*, by *Eucalyptus citriodora* aqueous extract. *Fitopatologia Brasileira* 2004; 29:128-134.
51. Bradford MM. A rapid and sensitive method for the quantification of microgram quantities of proteins utilizing the principle of protein-dye binding. *Analytical Biochemistry* 1976; 72: 248-254.
52. Boller T, Vögeli U. Vacuolar localization of ethylene-induced chitinase in bean leaves. *Plant physiology* 1984; 74(2): 442-444.
53. Britto AJD and Gracelin DHS. *Azadiracta Indica* A JUSS. A potential antimicrobial agent against *Xanthomonas campestris*. *International Journal of Applied Biology and Pharmaceutical Technology* 2011; Volume: 2: Issue-3: 374-378.
54. Bucheli CS, Dry IB, Robinson SP. Isolation of a full-length cDNA encoding polyphenol oxidase from sugarcane, a C4 grass. *Plant Mol Biol*. 1996 Sep; 31(6): 1233-8.
55. Busam G, Kassemeyer HH, Matern U. Differential expression of chitinases in *Vitis vinifera* L. responding to systemic acquired resistance activators or fungal challenge. *Plant Physiology* 1997; 115(3): 1029-1038.
56. Bybordi A, Tabatabaei SJ, Ali A. Effect of salinity on the growth and peroxidase and IAA oxidase activities in canola. *Journal of food, agriculture & environment* 2010; Vol.8 (1): 109-112.
57. Cantu D, Blanco-Ulate B, Yang L, Labavitch JM, Bennett AB, and Powell ALT. Ripening-Regulated Susceptibility of Tomato Fruit to *Botrytis cinerea* Requires *NOR* But Not *RIN* or Ethylene. *Plant Physiol*. 2009; 150(3): 1434–1449.
58. Casas AT and Kaiser WJ. Influence of Temperature, Wetness period, Plant age and Inoculum concentration on infection and development of Ascochyta Blight of Chickpea. *Ecology and Epidemiology* 1992; Vol. 82, No. 5, 589-596.
59. Cavalcanti, FR, Resende MLV, Carvalho CPS, Silveira JAG and Oliveira JTA. An aqueous suspension of *Crinipellis pernicioso* mycelium activates tomato defence responses against *Xanthomonas vesicatoria*. *Crop Protection* 2007; Volume 26, issue 5, p. 729-738.
60. Cavalcanti FR, Resende MLV, Ribeiro Júnior PM, Pereira RB, Oliveira JTA. Induction of resistance against *Verticillium dahliae* in cacao by a *Crinipellis pernicioso* suspension. *Journal of Plant Pathology* 2008; 90: 271-278.

61. Chan Z, Wang Q, Xu X, Meng X, Qin G, Li B and Tian S. Functions of defense-related proteins and dehydrogenases in resistance response induced by salicylic acid in sweet cherry fruits at different maturity stages. *Proteomics* 2008; 8: 4791–4807.
62. Chandra A, Saxena R, Dubey A, Saxena P. Change in phenylalanine ammonia lyase activity and isozyme patterns of polyphenol oxidase and peroxidase by salicylic acid leading to enhance resistance in cowpea against *Rhizoctonia solani*. *Acta Physiologiae Plantarum* 2007; 29 (4): 361-367.
63. Chang RJ, Ries SM and Pataky JK. Effects of temperature, plant age, inoculum concentration, and cultivar on the incubation period and severity of bacterial canker of tomato. *Plant Dis.* 1992; 76: 1150–1155.
64. Chase AR, and Jones JB. Effects of host nutrition, leaf age, and preinoculation light levels on severity of leaf spot on dwarf scedflera caused by *Pseudomonas cichorii*. *Plant Dis.* 1986; 70: 561–563.
65. Chatterjee A and Ghosh SK. Alterations in Biochemical components in mesta plants infected with yellow vein mosaic disease. *Brazilian society of plant physiology* 2008; 20(4): 267-275.
66. Chauhan DS, Deswal DP, Dahiya OS & Punia RC. Change in storage enzymes activities in natural and accelerated aged seed of wheat (*Triticum aestivum*). *Ind J Agri Sci.* 2011; 81(11): 1037-1040.
67. Chen C, Bélanger RR, Benhamou N and Paulitz T.C. Defense enzymes induced in cucumber roots by treatment with plant growth-promoting rhizobacteria (PGPR) and *Pythium aphanidermatum*. *Physiological and Molecular Plant Pathology* 2000; 56(1): 13-23.
68. Cheng Q, Zhang B, Zhuge Q, Zeng Y, Wang M, Huang M. Expression profiles of two novel lipoxygenase genes in *Populus deltoids*. *Plant Sci.* 2006; 170: 1027-1035.
69. Chiejina NV and Ukeh JA. Antimicrobial Properties and Phytochemical Analysis of Methanolic Extracts of *Aframomum Melegueta* and *Zingiber Officinale* on Fungal Diseases of Tomato Fruit. *Journal of Natural Sciences Research* 2012; Vol.2, No.6, 10-15.
70. Choi HW and Hwang BK. Systemic Acquired Resistance of Pepper to Microbial Pathogens. *J Phytopathol* 2011; 159: 393–400.

- 
71. Chopra IC, Gupta KC, Nazir BN. Preliminary study of antibacterial substances from *Melia azadirachta*. Indian Journal of Medical Research 1952; 40: 511-515.
  72. Chujo T, Takai R, Akimoto-Tomiya C, Ando S, Minami E, Nagamura Y, *et al.* Involvement of the elicitor-induced gene OsWRKY53 in the expression of defense-related genes in rice. Biochimica et Biophysica Acta (BBA)-Gene Structure and Expression 2007; 1769(7): 497-505.
  73. Cipollini DF and Redman AM. Age-Dependent Effects of Jasmonic Acid Treatment and Wind Exposure on Foliar Oxidase Activity and Insect Resistance in Tomato. Journal of Chemical Ecology 1999; Volume 25, Issue 2, pp. 271-281.
  74. Coego A, Ramirez V, Ellul P, Mayda E & Vera P. The H<sub>2</sub>O<sub>2</sub>-regulated Ep5C gene encodes a peroxidase required for bacterial speck susceptibility in tomato. The Plant Journal 2005; 42(2): 283-293.
  75. Cole AB, Király L, Lane LC, Wiggins BE, Ross K, Schoelz JE. Temporal expression of PR-1 and enhanced mature plant resistance to virus infection is controlled by a single dominant gene in a new *Nicotiana* hybrid. Mol Plant Microbe Interact. 2004; 17(9): 976-85.
  76. Collingel DB, Kragh KM, Mikkelsen JD, Nielsen KK and Vad K. Plant chitinases. The Plant Journal 1993; 3(1): 31-40.
  77. Colpas FT, Schwan-Estrada KRF, Stangarlin JR, Ferrarese ML, Scapim CA, Bonaldo SM. Induction of plant defense responses by *Ocimum gratissimum* L. (Lamiaceae) leaf extracts. Summa Phytopathologica 2009; 35: 191-195.
  78. Conrath U, Beckers GJM, Flors V, García-Agustín P, Jakab G, Mauch F, Newman MA, Pieterse CMJ, Poinssot B, Pozo MJ, Pugin A, Schaffrath U, Ton J, Wendehenne D, Zimmerli L, Mauch-Mani B: Priming: Getting Ready for Battle. Molecular Plant-Microbe Interactions 2006; 19(10): 1062-1071.
  79. Conrath U, Pieterse CM, Mauch-Mani B. Priming in plant-pathogen interactions. Trends Plant Sci. 2002; 7(5): 210-6.
  80. Constabel CP and Barbehenn R. Defensive Roles of Polyphenol Oxidase in Plants. Chapter 12. In: Schaller A (Ed.). Induced Plant Resistance to Herbivory. New York: Springer Verlag. 2008; 253-269.



81. Constabel CP, Bergey DR, and Ryan CA. Systemin activates synthesis of wound-inducible tomato leaf polyphenol oxidase via the octadecanoid defense signaling pathway. *Proc Natl Acad Sci. USA.* 1995 January 17; 92(2): 407–411.
82. Constabel CP, Ryan CA. A survey of wound- and methyl Jasmonate-induced leaf polyphenol oxidase in crop plants. *Phytochemistry* 1998; Volume 47, Number 4, February 1998, pp. 507-511.
83. Constabel CP, Yip L, Patton JJ, and Christopher ME. Polyphenol Oxidase from Hybrid Poplar. Cloning and Expression in Response to Wounding and Herbivory. *Plant Physiol.* 2000 September; 124(1): 285–296.
84. Cosio C and Dunand C. Specific functions of individual class III peroxidase genes. *Journal of experimental botany* 2009; 60(2): 391-408.
85. Daayf F, Schmitt A and Belanger RR. The effects of plant extracts of *Reynoutria sachalinensis* on powdery mildew development and leaf physiology of long English cucumber. *Plant Disease* 1995; 79(6): 577-580.
86. Dąbrowska G, Kata A, Goc A, Szechyńska-hebda M and Skrzypek E. Characteristics of the plant ascorbate peroxidase family. *Acta Biologica Cracoviensia Series Botanica.* 2007; 49(1): 7–17.
87. Daosheng X, Bin W, Haifeng S, Xiaoqing G, Lizeng Z, Xuemei Q. The Correlation between the Flavor and Quality of *Radix Astragali*: The Extraction and Characterization of Lipoxygenase in *Radix Astragali*. *Mode Tradit Chin Med Mater Med.* 2009; 11(3): 375–381.
88. Dat J, Vandenabeele S, Vranova E, Montagu MV, Inze D and Breusegem FV. Dual action of the active oxygen species during plant stress responses. *Cell. Mol. Life Sci.* 2000; 57: 779–795.
89. Daudi A, Cheng Z, O'Brien JA, Mammarella N, Khan S, Ausubel FM, Bolwell GP. The apoplastic oxidative burst peroxidase in *Arabidopsis* is a major component of pattern-triggered immunity. *Plant Cell.* 2012 Jan; 24(1): 275-87.
90. De Souza IRP, Oliveira E, Peres MA, Oliveira AC, Purcino AAC. Peroxidase activity in maize inbred lines resistant or susceptible to maize dwarf mosaic virus. *Revista Brasileira de Milho e Sorgo* 2003; v.2, n.1, p.1-8.

91. Delaplace P, Frettinger P, Ghanem ME, Blondiaux A, Bauwens J, Cotton S, De Clerck, C, Guy J, Heuze F, Massoz A, Tassignon T, Aubel AG, Du Jardin P, Fauconnier ML. Lipoxygenase pathway and antioxidant system in salt stressed tomato seedlings (*Lycopersicon esculentum* Mill.). *Biotechnol. Agron. Soc. Environ.* 2009; 13(4): 529-536.
92. Devaiah SP and Shetty HS. Induction of systemic resistance in pearl millet (*Pennisetum glaucum*) against downy mildew (*Sclerospora graminicola*) by *Datura metel* extract. *Crop Protection* 2009; Volume 28, Issue 9, Pages 783–791.
93. Develey-Rivière MP and Galiana E. Resistance to pathogens and host developmental stage: a multifaceted relationship within the plant kingdom. *New Phytologist* 2007; 175: 405–416.
94. Devi PUM, Reddy PS, Rani NRU, Reddy KJ, Reddy MN and Reddanna P. Lipoxygenase metabolites of alpha-linolenic acid in the development of resistance in pigeonpea, *Cajanus cajan* (L.) Millsp. seedlings against *Fusarium udum* infection. *European Journal of Plant Pathology* 2000; 106: 857–865.
95. De Souza IRP, De Oliveira E, Peres MA, De Oliveira AC, Purcino AAC. Peroxidase activity in maize inbred lines resistant or susceptible to maize dwarf mosaic virus. *Revista Brasileira de Milho e Sorgo* 2003; v. 2(1) p. 1-8.
96. Diawara MM, Trumble JT, Quiros CF, White KK and Adams C. Plant age and seasonal variation in genotypic resistance of Celery to Beet Armyworm (Lepidoptera: Noctuidae). *Journal of Economic Entomology* 1994; Vol.87, No. 2, pp. 514-522.
97. Dickson MH and Petzoldt R. Plant Age and Isolate Source Affect Expression of Downy Mildew Resistance in Broccoli. *Hortscience* 1993; 28(7): 730-731.
98. Ding CK, Wang CY, Gross KC, Smith DL. Jasmonate and salicylate induce the expression of pathogenesis-related-protein genes and increase resistance to chilling injury in tomato fruit. *Planta*. 2002; 214(6): 895-901.
99. Djonovic S, Pozo MJ, Dangott LJ, Howell CR and Kenerley CM. Sm1, a proteinaceous elicitor secreted by the biocontrol fungus *Trichoderma virens* induces plant defense responses and systemic resistance. *Molecular plant-microbe interactions*, 2006; 19(8): 838-853.

100. Doan AT, Ervin G, Felton G. Temporal effects on jasmonate induction of anti-herbivore defense in *Physalis angulata*: seasonal and ontogenetic gradients. *Biochemical Systematics and Ecology* 2004; Volume 32, Number 2, pp. 117-126.
101. Dolar FS. Effects of Leaf Age and Inoculum Concentration on Resistance of Detached Chickpea Leaflets to Two Different Races of *Ascochyta rabiei* (Pass.) Labr. *Tarim Bilimleri Dergisi* 1997; 3(1): 19-23.
102. Doğan S, Arslan O, Özen F. Polyphenol oxidase activity of oregano at different stages. *Food Chemistry* 2005; Volume 91, Issue 2, Pages 341–345.
103. Dong S, Shew HD, Tredway LP, Lu J, Sivamani E, Miller ES, Qu R. Expression of the bacteriophage T4 lysozyme gene in tall fescue confers resistance to gray leaf spot and brown patch diseases. *Transgenic Res.* 2008; 17(1):47-57.
104. Doubrava NS, Dean RA and Kuc J. Induction of systemic resistance to anthracnose caused by *Colletotrichum lagenarium* in cucumber by oxalate and extracts from spinach and rhubarb leaves. *Physiological and Molecular Plant Pathology* 1988; Volume 33, Issue 1, Pages 69–79.
105. Dowd PF, Johnson ET, Pinkerton TS. Identification and properties of insect resistance-associated maize anionic peroxidases. *Phytochemistry* 2010 Aug; 71(11-12): 1289-97.
106. Dowley LJ, Routley DG and Peirce LC. Ontogenetic predisposition of tomato foliage to race O of *Phytophthora infestans*. *Phytopathology* 1975; 65(12): 1422-1424.
107. Düring K, Porsch P, Fladung M, Lörz H. Transgenic potato plants resistant to the phytopathogenic bacterium *Erwinia carotovora*. *The Plant Journal* 1993; 3(4): 587-598.
108. Durrant WE, Dong X. Systemic Acquired Resistance. *Annual Review of Phytopathology* 2004; 42: 185-209.
109. Ebrahim S, Usha K and Bhupinder Singh. Pathogenesis Related (PR) Proteins in Plant Defense Mechanism. In: A. Mendez-Vilas (Ed.). *Science against microbial pathogens: communicating current research and technological advances*. Vol. 2. Badajoz, Spain: Formatex Research Center. 2011; 1043-1054.
110. Edreva A. Pathogenesis-related proteins: research progress in the last 15 years. *Gen Appl Plant Physiol* 2005; 31(1-2): 105-124.
111. El-Khallal SM. Induction and modulation of resistance in tomato plants against *Fusarium* wilt disease by bioagent fungi (arbuscular mycorrhiza) and/or hormonal

- elicitors (Jasmonic acid & Salicylic acid): 2-Changes in the antioxidant enzymes, phenolic compounds and pathogen related- proteins. Australian Journal of Basic and Applied Sciences 2007; 1(4): 717-732.
112. El Mansouri I, Mercado JA, Santiago- Dómenech N, Pliego- Alfaro F, Valpuesta V and Quesada MA. Biochemical and phenotypical characterization of transgenic tomato plants overexpressing a basic peroxidase. *Physiologia Plantarum*, 1999; 106(4): 355-362.
113. Enikuomehin OA. *Cercospora* leaf spot disease management in sesame (*Sesamum indicum* L.) with plant extracts. *Journal of Tropical Agriculture* 2005; 43 (1-2): 19-23.
114. Esaka M & Teramoto T. Short communication: cDNA cloning, gene expression and secretion of chitinase in winged bean. *Plant Cell Physiology* 1998, 39(3): 349- 356.
115. Felton GW, Korth KL, Bi JL, Wesley SV, Huhman DV, Mathews MC, Murphy JB, Lamb C, Dixon RA. Inverse relationship between systemic resistance of plants to microorganisms and to insect herbivory. *Curr Biol*. 1999 Mar 25; 9(6): 317-20.
116. Ferrie BJ, Beaudoin J, Burkhart W, Bowsher CG, and Rothstein SJ. The cloning of two tomato lipoxygenase genes and their differential expression during fruit ripening. *Plant Physiol*. 1994; 106(1): 109–118.
117. Floryszak-Wieczorek J, Arasimowicz-Jelonek M, Milczarek G, Janus L, Pawlak-Sprada S, Abramowski D, Deckert J, Billert H. Nitric oxide-mediated stress imprint in potato as an effect of exposure to a priming agent. *Mol Plant Microbe Interact*. 2012; 25(11): 1469-77.
118. Fidantsef AL, Stout MJ, Thaler JS, Duffey SS & Bostock RM. Signal interactions in pathogen and insect attack: expression of lipoxygenase, proteinase inhibitor II, and pathogenesis-related protein P4 in the tomato, *Lycopersicon esculentum*. *Physiological and Molecular Plant Pathology* 1999; 54(3): 97-114.
119. Fortunato FDA, Oliveira MGDA, Brumano MHN, Zanúncio JC, Oliveira JAD, Pilon AM, Almeida FTD, Sedyama CS, Moreira MA. Effect of the *Anticarsia gemmatalis* injury on the lipoxygenases activity from soybean leaves. *Biosci. J. Uberlandia* 2004; 20(2): 37-46.
120. Franzener G, Martinez-Franzener AS, Stangarlin JR, Furlanetto C and Schwan-Estrada KRF. Protection of tomato plants by *Tagetes patula* aqueous extract against *Meloidogyne incognita*. *Nematologia Brasileira* 2007; 31: 27-36.

- 
121. Franzener G, Stangarlin JR, Schwan-Estrada KRF and Cruz MES. Fungitoxic activity and resistance induction in wheat against *Bipolaris sorokiniana* by *Artemisia camphorata*. *Acta Scientiarum*. 2003; 25: 503-507.
122. Fraser RSS. Are 'pathogenesis-related' proteins involved in acquired systemic resistance of tobacco plants to tobacco mosaic virus? *Journal of General Virology* 1982; 58: 305–313.
123. Funnell DL, Lawrence CB, Pedersen JF and Schardl CL. Expression of the tobacco  $\beta$ -1,3-glucanase gene, *PR-2d*, following induction of SAR with *Peronospora tabacina*. *Physiological and Molecular Plant Pathology* 2004; Volume 65, issue 6, p. 285-296.
124. Gadea J, Conejero V and Vera P. Developmental regulation of a cytosolic ascorbate peroxidase gene from tomato plants. *Molecular and General Genetics MGG* 1999; 262(2): 212-219.
125. Gaffney T, Friedrich L, Vernooij B, Negrotto D, Nye G, Uknes S, Ward E, Kessmann H, Ryals J. Requirement of salicylic Acid for the induction of systemic acquired resistance. *Science* 1993; 261(5122): 754-756.
126. Gasper T, Penel C, Thorpe T, Greppin H. Peroxidases. A survey of their biochemical and physiological roles in higher plants. Geneva: University of Geneva Press, Geneva, Switzerland. 1982; Pages 324.
127. Gaspar T, Penel C, Hagege D, Greppin H. Peroxidase in Plant Growth, differentiation and Developmental Processes. Chapter 4. In: *Biochemical, Molecular and Physiological Aspects of Plant Peroxidases*. Lobarzewski J, Greppin H, Pennel C, Gaspar T (Eds.), Lublin (Poland) and Geneva (Switzerland). 1991; pp. 249–280.
128. Gelvonauskienė D, Ėikėnienė J, Rugienius R, Gelvonauskis B, Ėikėnianas T, Stanys V, Stanienė G, Sasnauskas A and Vinskienė J. Polyphenoloxidase isozyme and *Vfa1* sequence specific markers in apple cultivars differing in scab resistance. *Biologia* 2005; No. 3, p. 59–61.
129. Ghazanfar MU, Wakil W, and Sahi ST. Induction of Resistance In Chickpea (*Cicer arietinum L.*) against *Ascochyta rabiei* by applying chemicals and plant extracts. *Chilean journal of agricultural research* 2010; 71(1): 52-62.
130. Gigot C, Ongena M, Fauconnier ML, Wathelet JP, Jardin Pdu, Thonart P. The lipoxygenase metabolic pathway in plants: potential for industrial production of natural

- green leaf volatiles. *Biotechnologie Agronomie Société et Environnement* 2010; Vol. 14, No. 3, pp. 451-460.
131. Girish K, Shankara BS. Neem – A Green Treasure. *Electronic Journal of Biology* 2008; Vol. 4(3): 102-111.
132. Goellner K and Conrath U. Priming: it's all the world to induced disease resistance. *Eur J Plant Pathol* 2008; 121: 233–242.
133. Golubenko Z, Akhunov A, Khashimova N, Beresneva Y, Mustakimova E, Ibragimov F, Abdurashidova N and Stipanovic R. Induction of peroxidase as a disease resistance response in resistant (*Hibiscus trionum*) and susceptible (*Althea armeniaca*) species in the family Malvaceae. *Phytoparasitica* 2007; 35 (4): 401-413.
134. Gómez-Vásquez R, Day R, Buschmann H, Randles S, Beeching JR, Cooper RM. Phenylpropanoids, phenylalanine ammonia lyase and peroxidases in elicitor-challenged cassava (*Manihot esculenta*) suspension cells and leaves. *Ann Bot.* 2004; 94(1): 87-97.
135. Goszczynska T, Serfontein JJ, Serfontein S. Introduction to practical phytobacteriology. A manual for phytobacteriology. Pretoria, South Africa: Safrinet; 2000. Pages 91.
136. Govindappa M, Umesha S and Lokesh S. *Adathoda vasica* leaf extract induces resistance in rice against bacterial leaf blight disease (*Xanthomonas oryzae* pv. *oryzae*). *International Journal of Plant Physiology and Biochemistry* 2011; Vol. 3(1), pp. 6–14.
137. Goupil P, Benouaret R, Charrier O, Ter Halle A, Richard C, Eyheraguibel B, Thiery D, Ledoigt G. Grape marc extract acts as elicitor of plant defence responses. *Ecotoxicology* 2012; 21(5): 1541-9.
138. Graham MY, Weidner J, Wheeler K, Pelow MJ and Graham TL. Induced expression of pathogenesis-related protein genes in soybean by wounding and the *Phytophthora sojae* cell wall glucan elicitor. *Physiological and molecular plant pathology* 2003; 63(3): 141-149.
139. Griffey RT and Leach JG. The influence of age on tissue development of bean anthracnose lesions. *Phytopathology* 1965; 55: 915–918.
140. Griffin GD and Hunt OJ. Effect of Plant Age on Resistance of Alfalfa to *Meloidogyne hapla*. *Journal of Nematology* 1972; Vol 4, No. 2, pp. 87-90.

- 
141. Grover A, Bhandari BS, Rai N. Antimicrobial Activity of Medicinal plants- *Azadirachta indica* A. Juss, *Allium cepa* L. and *Aloe vera* L. International Journal of PharmTech Research 2011; 3(2): 1059-1065.
  142. Guleria S and Kumar A. *Azadirachta indica* leaf extract induces resistance in sesame against *Alternaria* leaf spot disease. Journal of Cell and Molecular Biology 2006; 5: 81-86.
  143. Hadian S, Rahnama K, Jamali S, Eskandari A. Comparing Neem extract with chemical control on *Fusarium oxysporum* and *Meloidogyne incognita* complex of tomato. Advances in Environmental Biology 2011; 5(8): 2052-2057.
  144. Halfeld Vieira BdeA, Vieira Junior JR, Romeiro RdaS, Silva HAS, Baracat Pereira MC. Induction of systemic resistance in tomato by the autochthonous phylloplane resident *Bacillus cereus*. Pesquisa Agropecuaria Brasileira 2006; 41: 1247-1252.
  145. Hammerschmidt R, Nuckles EM, Kuć J. Association of enhanced peroxidase activity with induced systemic resistance of cucumber to *Colletotrichum lagenarium*. Physiological Plant Pathology 1982; Volume 20, Issue 1, Pages 73–76.
  146. Hansen EM, Parke JL, and Sutton W. Susceptibility of Oregon Forest Trees and Shrubs to *Phytophthora ramorum*: A Comparison of Artificial Inoculation and Natural Infection. Plant Disease 2005; Vol 89, No. 1, pp: 63-70.
  147. Harman GE, Howell CR, Viterbo A, Chet I, Lorito M. *Trichoderma* species - opportunistic, avirulent plant symbionts. Nature Reviews Microbiology 2004; 2:43-56.
  148. Hashmat I, Azad H and Ahmed A. Neem (*Azadirachta indica* A. Juss) - A Nature's Drugstore: An overview. International Research Journal of Biological Sciences 2012; Vol. 1(6), 76-79.
  149. Hassan MAE, Bereika MFF, Abo-Elnaga HIG and Sallam MAA. Direct Antimicrobial Activity and Induction of Systemic Resistance in Potato Plants Against Bacterial Wilt Disease by Plant Extracts. The Plant Pathology Journal 2009; Vol.25 No.4, 352-360.
  150. Hassan MEM, El-Rahman SSA, El-Abbasi IH and Mikhail MS. Changes in Peroxidase Activity Due to Resistance Induced Against Faba Bean Chocolate Spot Disease. Egypt. J. Phytopathol. 2007; Vol. 35, No. 1, pp. 35-48.

151. Hassanein NM, Abou Zeid MA, Youssef KA, Mahmoud DA. Efficacy of Leaf Extracts of Neem (*Azadirachta indica*) and Chinaberry (*Melia azedrach*) Against Early Blight and Wilt Diseases of Tomato. *Aust. J. Basic Appl. Sci.* 2008; 2(3): 763-772.
152. Hatcher PE and Paul ND. Beetle grazing reduces natural infection of *Rumex obtusifolius* by fungal pathogens. *New Phytologist* 2000; 146 (2), pp. 325-333.
153. Hauck P, Thilmony R and He SY. A *Pseudomonas syringae* type III effector suppresses cell wall-based extracellular defense in susceptible *Arabidopsis* plants. *Proceedings of the National Academy of Sciences* 2003; 100(14): 8577-8582.
154. He C, Hsiang T and Wolyn DJ. Activation of defense responses to *Fusarium* infection in *Asparagus densiflorus*. *European Journal of Plant Pathology* 2001; 107: 473–483.
155. He J, Chen F, Chen S, Lv G, Deng Y, Fang W, Liu Z, Guan Z, He C. *Chrysanthemum* leaf epidermal surface morphology and antioxidant and defense enzyme activity in response to aphid infestation. *J Plant Physiol.* 2011; 168 (7): 687-93.
156. Heath MC. Genetics and cytology of age-related resistance in North American cultivars of cowpea (*Vigna unguiculata*) to cowpea rust fungus (*Uromyces vignae*). *Can J Bot* 1994; 72: 575–581.
157. Heil M and Bostock RM. Induced Systemic Resistance (ISR) Against Pathogens in the Context of Induced Plant Defences. *Annals of Botany* 2002; 89: 503-512.
158. Hemetsberger C, Herrberger C, Zechmann B, Hillmer M, Doehlemann G. The *Ustilago maydis* effector Pep1 suppresses plant immunity by inhibition of host peroxidase activity. *PLoS Pathog.* 2012; 8(5):e1002684. doi: 10.1371/journal.ppat.1002684.
159. Hertel H, Hieke B, Schewe T, Hoffmann P. Lipoxygenase Activity in *Triticum aestivum* Seedlings during Early Stages of Development. *Biochemie und Physiologie der Pflanzen* 1987; Volume 182, Issue 6, Pages 443–447.
160. Hiraga S, Sasaki K, Ito H, Ohashi Y, Matsui H. A large family of class III plant peroxidases. *Plant Cell Physiol.* 2001; 42: 462–468.
161. Hong JK, Lee YK, Jeun YC and Hwang BK. Histological and Ultrastructural Study of Susceptible and Age-related Resistance Responses of Pepper Leaves to *Colletotrichum coccodes* Infection. *Plant Pathol. J.* 2001; 17(3): 128-140.
162. Hoque MDM, Bari ML, Inatsu Y, Juneja VK, and Kawamoto S. Antibacterial Activity of Guava (*Psidium guajava* L.) and Neem (*Azadirachta indica* A. Juss.) Extracts Against



- Foodborne Pathogens and Spoilage Bacteria. Foodborne pathogens and Disease 2007; 4(4): 481-488.
163. Hu T, Qv X, Hu Z, Chen G and Chen G. Expression, molecular characterization and detection of lipoxygenase activity of *tomloxD* from tomato. African Journal of Biotechnology 2011; Vol. 10 (4), pp. 490-498.
164. Hunter RE, Halloin JM, Veech JA and Carter WW. Terpenoid accumulation in hypocotyls of cotton seedlings during aging and after infection by *Rhizoctonia solani*. Phytopathology 1977; 68: 347–350.
165. Hwang IS and Hwang BK. The Pepper 9-Lipoxygenase Gene *CaLOXI* Functions in Defense and Cell Death Responses to Microbial Pathogens. Plant Physiology February 2010; vol. 152, no. 2, 948-967.
166. Hwang JS and Hwang BK. Quantitative evaluation of resistance of Korean tomato cultivars to isolates of *Phytophthora capsici* from different geographic areas. Plant Disease 1993; 77(12): 1256-1259.
167. Ibrahim YE. Activities of antioxidants enzymes in Salicylic acid treated tomato against *Xanthomonas vesicatoria*. African Journal of Microbiology Research 2012; 6(27): 5678-5682.
168. Ijato JY, Dele OS, Ademola IJ, Adeniran AJ. Allelopathic effect of leaf extract of *Azadirachta indica* and *Chromolaena odorata* against post harvest and transit rot of tomato (*Lycopersicon esculentum* L). Journal of American Science 2010; 6(12):1595-1599.
169. Inbar M, Doostdar H, Sonoda RM, Leibe GL, Mayer RT. Elicitors of plant defensive systems reduce insect densities and disease incidence. Journal of Chemical Ecology 1998; 24(1): 135-149.
170. Irshad S, Butt M and Younus H. In-Vitro Antibacterial Activity of Two Medicinal Plants Neem (*Azadirachta indica*) and Peppermint. Intl. R. J. of Pharmaceuticals 2011; Vol. 01, Issue 01, pp. 9-14.
171. Irving HR, Kuc JA. Local and systemic induction of peroxidase, chitinase and resistance in cucumber plants by  $K_2HPO_4$ . Physiological and Molecular Plant Pathology 1990; 37(5): 355-366.

172. Islam MT and Faruq AN. Effect of Some Medicinal Plant Extracts on Damping-off Disease of Winter Vegetable. *World Applied Sciences Journal* 2012; 17 (11): 1498-1503.
173. Jacobsen S, Mikkelsen JD and Hejgaard J. Characterization of two antifungal endochitinases from barley grain. *Physiologia Plantarum* 1990; 79: 554–562.
174. Jacome LH and Scuh W. Effects of leaf wetness duration and temperature of development of black Sigatoka disease on banana infected by *Mycosphaerella fijiensis* var. *difformis*. *Phytopathology* 1992; 82: 515-520.
175. Jahan T, Begum ZA and Sultana S. Effect of neem oil on some pathogenic bacteria. *Bangladesh J Pharmacol* 2007; 2: 71-72.
176. Jardim BC, Perdizio VA, Berbert-Molina MA, Rodrigues DC, Botelho-Junior S, Vicente Ana CP, Hansen E, Otsuki K, Urmenyi TP and Jacinto T. Herbivore Response in Passion Fruit (*Passiflora edulis* Sims) Plants: Induction of Lipoxygenase Activity in Leaf Tissue in Response to Generalist and Specialist Insect Attack. *Protein and Peptide Letters* 2010; Volume 17, Number 4, pp. 480-484.
177. Javed N, Gowen SR, Inam-ul-Haq M, Abdullah K, Shahina F. Systemic and persistent effect of neem (*Azadirachta indica*) formulations against root-knot nematodes, *Meloidogyne javanica* and their storage life. *Crop Protection* 2007; 26(7): 911-916.
178. Javed N, Safdar A, Anwar SA, Fyaz S, Khan MM and Ashfaq M. Effects of neem formulations applied as soil drenching on the development of root-knot nematode *Meloidogyne javanica* on roots of tomato. *Pak. j. bot.* 2008; 40(2): 905-910.
179. Jayaraman J, Norrie J and Punja ZK. Commercial extract from the brown seaweed *Ascophyllum nodosum* reduces fungal diseases in greenhouse cucumber. *J Appl Phycol.* 2011; 23: 353–361.
180. Johnson PR and Ecker JR. The ethylene gas signal transduction pathway: a molecular perspective. *Annual Review of Genetics* 1998; 32: 227–254.
181. Joo YC, OH DK. Lipoxygenases: Potential starting biocatalysts for the synthesis of signaling compounds. *Biotechnology Advances* 2012; Volume 30, Issue 6, Pages 1524–1532.
182. Joseph B, Dar MA and Kumar V. Bioefficacy of Plant Extracts to Control *Fusarium solani* F. Sp. *melongenae* Incitant of Brinjal Wilt. *Global Journal of Biotechnology & Biochemistry* 2008; 3(2): 56-59.

183. Kagale S, Marimuthu T, Kagale J, Thayumanavan B and Samiyappan R. Induction of systemic resistance in rice by leaf extracts of *Zizyphus jujuba* and *Ipomoea carnea* against *Rhizoctonia solani*. *Plant Signal Behav.* 2011; 6(7): 919-23.
184. Kagale S, Marimuthu T, Kagale J, Thayumanavan B, Nandakumar R and Samiyappan R. Antimicrobial activity and induction of systemic resistance in rice by leaf extract of *Datura metel* against *Rhizoctonia solani* and *Xanthomonas oryzae* pv. *oryzae*. *Physiological and Molecular Plant Pathology* 2004; Volume 65, Issue 2, Pages 91–100.
185. Kalappanavar IK, Hiremath RV. Biochemical factors for multiple resistance to foliar diseases of sorghum. *Madras Agricultural Journal* 2000; 87: 66-70.
186. Kar M and Mishra D. Catalase, Peroxidase, and Polyphenoloxidase Activities during Rice Leaf Senescence. *Plant Physiol.* 1976; 57: 315-319.
187. Karimi-Kurdistan G and Harighi B. Phenotypic and molecular properties of *pseudomonas syringae* pv. *syringae* the causal agent of bacterial canker of stone fruit trees in kurdistan province. *Journal of Plant Pathology* 2008; 90 (1): 81-86.
188. Kausch KD and Handa AK. Molecular cloning of a ripening-specific lipoxygenase and its expression during wild-type and mutant tomato fruit development. *Plant Physiol.* 1997; 113(4): 1041–1050.
189. Kauss H, Theisinger-Hinkel E, Mindermann R and Conrath U. Dichloroisonicotinic and salicylic acid, inducers of systemic acquired resistance, enhance fungal elicitor responses in parsley cells. *The Plant Journal* 1992; 2: 655–660.
190. Kavitha R and Umesha S. Regulation of Defense-Related Enzymes Associated with Bacterial Spot Resistance in Tomato. *Phytoparasitica* 2008; 36(2): 144-159.
191. Kessmann H, Staub T, Hofmann C, Maetzke T, Herzog J, Ward E, Uknes S, and Ryals J. Induction of Systemic Acquired Disease Resistance in Plants by Chemicals. *Annual Review of Phytopathology* 1994; Vol. 32, 439-459.
192. Kim JY, Seo YS, Kim JE, Sung SK, Song KJ, An G, Kim WT. Two polyphenol oxidases are differentially expressed during vegetative and reproductive development and in response to wounding in the Fuji apple. *Plant Science* 2001; Volume 161, Number 6, pp. 1145-1152.
193. Kim YJ, Hwang BK and Park KW. Expression of age related resistance in Pepper plants infected with *Phytophthora capsici*. *Plant Disease* 1989; 73: 745-747.

- 
194. Klotz KL, Liu TTL, Liu L, Lagrimini M. Expression of the tobacco anionic peroxidase gene is tissue-specific and developmentally regulated. *Plant Mol Biol.* 1998; 36: 509–520.
  195. Knoester M, Pieterse CM, Bol JF, Van Loon LC. Systemic resistance in *Arabidopsis* induced by rhizobacteria requires ethylene-dependent signaling at the site of application. *Mol Plant Microbe Interact.* 1999; 12(8): 720-727.
  196. Koch E, Meier BM, Eiben HG, and Slusarenko A. A Lipoxygenase from Leaves of Tomato (*Lycopersicon esculentum* Mill.) is induced in Response to Plant Pathogenic *Pseudomonads*. *Plant Physiol.* 1992; 99: 571-576.
  197. Koch MF and Mew TW. Effects of plant age and leaf maturity on the quantitative resistance of rice cultivars to *Xanthomonas campestris* pv. *oryzae*. *Plant Dis.* 1991; 75: 901–904.
  198. Kohler A, Schwindling S, Conrath U. Benzothiadiazole-induced priming for potentiated responses to pathogen infection, wounding, and infiltration of water into leaves require the *NPRI/NIMI* gene in *Arabidopsis*. *Plant Physiology* 2002; 128: 1046-1056.
  199. Kowalewski A and Herger G. Investigations about the occurrence and chemical nature of the resistance inducing factor in the extract of *Reynoutria sachalinensis*. *Mededelingen van de Faculteit Landbouwwetenschappen, Universiteit Gent* 1992; 57(2b): 449-456.
  200. Krishnamurthy YL, Shashikala J and Naik BS. Antifungal potential of some natural products against *Aspergillus flavus* in soybean seeds during storage. *Journal of Stored Products Research* 2008; Volume 44, Issue 4, Pages 305–309.
  201. Kus JV, Zaton K, Sarkar R and Cameron RK. Age-related resistance in *Arabidopsis* is a developmentally regulated defense response to *Pseudomonas syringae*. *Plant Cell* 2002; 14: 479–490.
  202. Laemmli UK. Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature* 1970; 227: 680-685.
  203. Lagrimini LM and Rothstein S. Tissue Specificity of Tobacco Peroxidase Isozymes and Their Induction by Wounding and Tobacco Mosaic Virus Infection. *Plant Physiol.* 1987; 84: 438-442.

- 
204. Latha P, Anand T, Ragupathi N, Prakasam V and Samiyappan R. Antimicrobial activity of plant extracts and induction of systemic resistance in tomato plants by mixtures of PGPR strains and Zimmu leaf extract against *Alternaria solani*. *Biological Control* 2009; 50 (2), pg. 85-93.
205. Latif MA, Saleh AKM, Khan MAI, Rahman H and Hossain MA. Efficacy of Some Plant Extracts in Controlling Seed-Borne Fungal Infections of Mustard. *Bangladesh J Microbiol* 2006; Volume 23, Number 2, pp 168-170.
206. Lavanya SN, Niranjana Raj S, Udayashankar AC, Kini KR, Amruthesh KN, Niranjana SR, Shetty HS. Comparative analysis of activities of vital defence enzymes during induction of resistance in pearl millet against downy mildew. *Archives of Phytopathology and Plant Protection* 2012; 45(11): 1252-1272.
207. Lazarovits G, Stossel P and Ward EWB. Age-related changes in specificity and glyceollin production in the hypocotyl reaction of soybeans to *Phytophthora megasperma* var. *sojae*. *Phytopathology* 1981; 71: 94–97.
208. Leah R, Tommerup H, Svendsen I, Mundy J. Biochemical and molecular characterization of three barley seed proteins with antifungal properties. *J Biol Chem.* 1991; 266(3):1564-73.
209. Lelliott RA, Stead DE. *Methods for the Diagnosis of Bacterial Diseases of Plants*. Oxford, United Kingdom: Blackwell. 1987; pages 224.
210. Lemessa F and Zeller W. Pathogenic characterisation of strains of *Ralstonia solanacearum* from Ethiopia and influence of plant age on susceptibility of hosts against *R. solanacearum*. *Journal of Plant Diseases and Protection* 2007; 114 (6): 241–249.
211. Lepedus H, Cesar V, Krsnik-Rasol M. Guaiacol Peroxidases in Carrot (*Daucus carota* L.) Root. *Food technology and biotechnology*. 2004, Vol. 42, Part 1, pages 33-36.
212. Levy D and Lapidot M. Effect of plant age at inoculation on expression of genetic resistance to tomato yellow leaf curl virus. *Arch Virol* 2008; 153: 171–179.
213. Li L and Steffens JC. Overexpression of polyphenol oxidase in transgenic tomato plants results in enhanced bacterial disease resistance. *Planta* 2002 Jun; 215(2): 239-47.
214. Liu X, Williams CE, Nemacheck NA, Wang H, Subramanyam S, Zheng C, and Chen MS. Reactive Oxygen Species Are Involved in Plant Defense against a Gall Midge. *Plant Physiol.* 2010 February; 152(2): 985–999.

- 
215. Longxian R, Wenzhong G, Guangjin W. Role of salicylic acid in induction of resistance against bacterial wilt in *Eucalyptus urophylla* and changes of peroxidase and polyphenol oxidase. *Forest Research* 2004; 17(1): 12-18.
216. López MA, Vicente J, Kulasekaran S, Velloso T, Martínez M, Irigoyen ML, Cascón T, Bannenberg G, Hamberg M and Castresana C. Antagonistic role of 9-lipoxygenase-derived oxylipins and ethylene in the control of oxidative stress, lipid peroxidation and plant defence. *The Plant Journal* 2011; 67: 447–458.
217. Lučić B, Jovanović Ž, Radović S, Maksimović V. Cold-induced response of buckwheat (*Fagopyrum esculentum* Moench) seedlings. *Archives of Biological Sciences* 2009, vol. 61, 3-4.
218. Luna E, Bruce TJA, Roberts MR, Flors V and Ton J. Next-Generation Systemic Acquired Resistance. *Plant Physiology* 2012; Vol. 158, pp. 844–853.
219. Madhavi KJ, Sujatha M, Reddy RRP, Chander R. Biochemical characterization of resistance against *Alternaria helianthi* in cultivated and wild sunflowers. *Helia* 2005; Vol. 28, No. 43, pp. 13-23.
220. Mahanil S, Attajarusit J, Stout MJ, Thipyapong P. Overexpression of tomato polyphenol oxidase increases resistance to common cutworm. *Plant Science* 2008; Vol. 174, No. 4, pp. 456-466.
221. Mahfuzul Hoque MD, Bari ML, Inatsu Y, Juneja VK, Kawamoto S. Antibacterial activity of Guava (*Psidium guajava* L.) and Neem (*Azadirachta indica* A. Juss.) extracts against foodborne pathogens and spoilage bacteria. *Foodborne pathogens and disease* 2007; 4(4): 481-488.
222. Majeau N, Trudel J, Asselin A. Diversity of cucumber chitinase isoforms and characterization of one seed basic chitinase with lysozyme activity. *Plant Science* 1990; 68: 9-16.
223. Majeed A, Ahmad H, Chaudhry Z, Jan G, Alam J and Muhammad Z. Assessment of leaf extracts of three medicinal plants against late blight of potato in Kaghan valley, Pakistan. *Journal of Agricultural Technology* 2011; Vol. 7(4): 1155-1161.
224. Maleck M, Levine A, Eulgem T, Morgan A, Schmid J, Lawton KA, Dangl JL, Dietrich RA. The transcriptome of *Arabidopsis thaliana* during systemic acquired resistance. *Nature Genetics* 2000; 26: 403 – 410.
-

225. Mandal B, Wells ML, Martinez-Ochoa N, Csinos AS & Pappu HR. Symptom development and distribution of Tomato spotted wilt virus in flue-cured tobacco. *Annals of Applied Biology* 2007; 151: 67-75.
226. Maragathavalli S, Brindha S, Kaviyarasi NS, Annadurai B, Gangwar S. Antimicrobial activity in leaf extract of neem (*Azadirachta indica* Linn.). *International Journal of Science and Nature* 2012; 3(1): 110-113.
227. Marcucci E, Aleandri MP, Chilosi G, Magro P. Induced Resistance by  $\beta$ -Aminobutyric Acid in Artichoke against White Mould Caused by *Sclerotinia sclerotiorum*. *Journal of Phytopathology* 2010; Volume 158, Issue 10, pages 659–667.
228. Mariutto M, Duby F, Adam A, Bureau C, Fauconnier ML, M, Thonart P, Dommes J. The elicitation of a systemic resistance by *Pseudomonas putida* BTP1 in tomato involves the stimulation of two lipoxygenase isoforms. *Plant Biology* 2011; 1-15.
229. Martin MN. The latex of *Hevea brasiliensis* contains high levels of both chitinases and chitinases/lysozymes. *Plant physiology* 1991; 95(2): 469-476.
230. Mauch F, Hadwiger LA, Boller T. Antifungal hydrolases in pea tissue I. Purification and characterization of two chitinases and two B-1,3-glucanases differentially regulated during development and in response to fungal infection. *Plant Physiol* 1988; 87: 325-333.
231. Mauch-Mani B and Mauch F. The role of abscisic acid in plant–pathogen interactions. *Current Opinions in Plant Biology* 2005; 8: 409–414.
232. Mauch-Mani B, Metraux JP. Salicylic acid and systemic acquired resistance to pathogen attack. *Annals of Botany* 1998; 82:535-540.
233. Mayda E, Mauch-Mani B and Vera P. Arabidopsis *dth9* mutation identifies a gene involved in regulating disease susceptibility without affecting salicylic acid-dependent responses. *Plant Cell* 2000; 12: 2119–2128.
234. Mayer AM. Polyphenol oxidases in plants and fungi: Going places? A review. *Phytochemistry* 2006, 67: 2318–2331.
235. Mayer RT, Inbar M, McKenzie CL, Shatters R, Borowicz V, Albrecht U, Powell CA, Doostdar H. Multitrophic interactions of the silverleaf whitefly, host plants, competing herbivores, and phytopathogens. *Archives of insect biochemistry and physiology* 2002; 51(4): 151-169.

236. Mayer RT, McCollum TG, Niedz RP, Hearn CJ, McDonald RE, Berdis E, Doostdar H. Characterization of seven basic endochitinases isolated from cell cultures of *Citrus sinensis* (L.). *Planta* 1996; 200(3): 289-295.
237. Mazzafera P & Robinson SP. Characterization of polyphenol oxidase in coffee. *Phytochemistry* 2000; 55(4): 285-96.
238. Melan MA, Dong X, Endara ME, Davis KR, Ausubel FM, Peterman TK. An *Arabidopsis thaliana* lipoxygenase gene can be induced by pathogens, abscisic acid, and methyl jasmonate. *Plant Physiol* 1993; 101: 441–450.
239. Mene-Saffrane L, Esquerre-Tugaye MT, Fournier J. Constitutive expression of an inducible lipoxygenase in transgenic tobacco decreases susceptibility to *Phytophthora parasitica* var. *nicotianae*. *Mol Breed.* 2003; 12: 271–282.
240. Metraux JP. Systemic acquired resistance and salicylic acid: current state of knowledge. *European Journal of Plant Pathology* 2001; 107: 13–18.
241. Metraux JP, Burkhart W, Moyer M, Dincher S, Middlesteadt W, Williams S, Payne G, Carnes M & Ryals J. Isolation of a complementary DNA encoding a chitinase with structural homology to a bifunctional lysozyme/chitinase. *Proceedings of the National Acedemy of Science* 1989; 86: 896- 900.
242. Meuwly P, Molders W, Buchala A, and Metraux JP. Local and Systemic Biosynthesis of Salicylic Acid in Infected Cucumber Plants. *Plant Physiol* 1995; 109(3): 1107–1114.
243. Meyer K, Hahnel E and Steinberg A. Lysozyme of plant origin. *J. Biol. Chem.* 1946; 163: 733-740.
244. Miller ME. Relationship between onion leaf age and susceptibility to *Alternaria porri*. *Plant Dis.* 1983; 67: 284–286.
245. Millett BP, Mollov DS, Iorizzo M, Carputo D and Bradeen JM. Changes in disease resistance phenotypes associated with plant physiological age are not caused by variation in R gene transcript abundance. *Mol Plant Microbe Interact.* 2009; 22(3): 362-368.
246. Mínguez-Mosquera MI, Jarén-Galan M and Garrido-Fernandez J. Lipoxygenase Activity during Pepper Ripening and Processing of Paprika. *Phytochemistry* 1993; 32(5): 1103–1108.
247. Mohammadi M and Kazemi H. Changes in peroxidase and polyphenol oxidase activities in susceptible and resistant wheat heads inoculated with *Fusarium*



- graminearum* and induced resistance. *Plant Science* 2002; Volume 162, Issue 4, Pages 491–498.
248. Mohan R, Vijayan P and Kolattukudy PE. Developmental and tissue-specific expression of a tomato anionic peroxidase (*tap1*) gene by a minimal promoter, with wound and pathogen induction by an additional 5'-flanking region. *Plant Molecular Biology* 1993; Volume 22, Issue 3, pp 475-490.
249. Mondall NK, Mojumdar A, Chatterje SK, Banerjee A, Datta JK, Gupta S. Antifungal activities and chemical characterization of Neem leaf extracts on the growth of some selected fungal species in vitro culture medium. *Journal of Applied Sciences & Environment* 2009; 13(1): 49-53.
250. Montillet JL, Agnel JP, Ponchet M, Vailleau F, Roby D, Triantaphylidès C. Lipoxygenase-mediated production of fatty acid hydroperoxides is a specific signature of the hypersensitive reaction in plants. *Plant Physiology and Biochemistry* 2002; Volume 40, Issues 6–8, Pages 633–639.
251. Moslem MA, El-Kholie EM. Effect of neem (*Azadirachta indica* A. Juss) seeds and leaves extract on some plant pathogenic fungi. *Pakistan Journal of Biological Science* 2009; 12(14): 1045-1048.
252. Mostafa MH and Gado EAM. Inducing Resistance in Potato Plants against Late Blight disease in Relation to Elicitation of Phytoalexins. *Egypt. J. Phytopathol.* 2007; Vol. 35, No. 2, pp. 11-22.
253. Mur LAJ, Naylor G, Warner SAJ, Sugars JM, White RF, Draper J. Salicylic acid potentiates defence gene expression in tissue exhibiting acquired resistance to pathogen attack. *Plant Journal* 1996; 9: 559-571.
254. Mutty SD and Hossenkhan NT. Age-Related Resistance in Commercial Varieties of *Solanum tuberosum* to the Late Blight Pathogen *Phytophthora infestans*. *Plant Pathology Journal* 2008; 7(2): 168-173.
255. Nagy NE, Fossdal CG, Dalen LS, Lönneborg A, Heldal I and Johnsen O. Effects of *Rhizoctonia* infection and drought on peroxidase and chitinase activity in Norway spruce (*Picea abies*). *Physiologia Plantarum* 2004; 120: 465–473.

- 
256. Nakajima H, Muranaka T, Ishige F, Akutsu K, Oeda K. Fungal and bacterial disease resistance in transgenic plants expressing human lysozyme. *Plant Cell Report* 1997; 16:674–679.
257. Nakkeeran S, Kavitha K, Chandrasekar G, Renukadevi P, Fernando WGD. Induction of plant defence compounds by *Pseudomonas chlororaphis* PA23 and *Bacillus subtilis* BSCBE4 in controlling damping-off of hot pepper caused by *Pythium aphanidermatum*. *Biocontrol Science and Technology* 2006; 16(3-4): 403-416.
258. Nashwa SMA and Abo-Elyousr KAM. Evaluation of various plant extracts against the early blight disease of tomato plants under greenhouse and field conditions. *Plant Protection Science* 2012; Vol. 48, No. 2, pp. 74-79.
259. Nemchenko A, Kunze S, Feussner I, Kolomiets M. Duplicate maize 13-lipoxygenase genes are differentially regulated by circadian rhythm, cold stress, wounding, pathogen infection, and hormonal treatments. *J Exp Bot.* 2006; 57(14): 3767-79.
260. Németh ZI, Pozsgai-Harsányi M, Gálos B, Levente A. Stress Sensitivity of Correlation between POD and PPO Activities in Plants. *Acta Silv. Lign. Hung.* 2009; Vol. 5: 27-45.
261. Neto ADD, Prisco JT, Eneas-filho J, Braga de Abreu CE, Gomes-Filho E. Effect of salt stress on antioxidative enzymes and lipid peroxidation in leaves and roots of salt-tolerant and salt-sensitive maize genotypes. *Environmental and Experimental Botany* 2006; 56(1): 87-94.
262. Newcombe G. Association of *Mmd1*, a major gene for resistance to *Melampsora medusae* f. sp. *deltoidae*, with quantitative traits in poplar rust. *Phytopathology* 1998; 88: 114-121.
263. Newman SM, Eannetta NT, Yu H, Prince JP, de Vicente MC, Tanksley SD and Steffens JC. Organisation of the tomato polyphenol oxidase gene family. *Plant molecular biology* 1993; 21(6): 1035-1051.
264. Newman SM, Tantasawat P, Steffens JC. Tomato Polyphenol Oxidase B Is Spatially and Temporally Regulated during Development and in Response to Ethylene. *Molecules* 2011; 16: 493-517.
265. Ngadze E, Icishahayo D, Coutinho TA and Van der Waals JE. Role of polyphenol oxidase, peroxidase, phenylalanine ammonia lyase, chlorogenic acid, and total soluble phenols in resistance of potatoes to soft rot. *Plant Dis.* 2012; 96: 186-192.

266. Nomura K, Melotto M and He SY. Suppression of host defense in compatible plant-*Pseudomonas syringae* interactions. *Current opinion in plant biology* 2005; 8(4): 361-368.
267. Nwogbaga AC and Utobo EB. Evaluation of neem seed extract and fungicides (benlate and apron plus 50 ds) as seed dressing for the management of fungal leaf spot diseases of eggplant. *Continental J. Agricultural Science* 2012; 6 (1): 28–35.
268. O'Brien JA, Daudi A, Finch P, Butt VS, Whitelegge JP, Souda P, Ausubel FM, Bolwell GP. A peroxidase-dependent apoplastic oxidative burst in cultured Arabidopsis cells functions in MAMP-elicited defense. *Plant Physiol.* 2012 Apr; 158(4): 2013-27.
269. Obongoya BO, Wagai SO and Odhiambo G. Phytotoxic effect of selected crude plant extracts on soil-borne fungi of common bean. *African Crop Science Journal* 2010; Vol. 18, No. 1, pp. 15-22.
270. Ojha S and Chatterjee N. Induction of Resistance in Tomato Plants Against *Fusarium Oxysporum* F. sp. *Lycopersici* Mediated Through Salicylic Acid and *Trichoderma Harzianum*. *Journal of plant protection research* 2012; Volume 52, Issue 2, Pages 220–225.
271. Ojiambo PS, Ayiecho PO and Nyabundi JO. Effect of Plant Age on Sesame Infection By *Alternaria* Leaf Spot. *African Crop Science Journal* 1999; 7(1): 91-96.
272. Olufolaji DB. Control of wet rot disease of *Amaranthus* sp. caused by *Choanephora cucurbitarum* with extracts of *Azadiactha indica*. *Journal of Sustainable Agriculture and the Environment* 1999; 1(22): 183-190.
273. Ortega-García F and Peragón J. The response of phenylalanine ammonia-lyase, polyphenol oxidase and phenols to cold stress in the olive tree (*Olea europaea* L. cv. picual). *J. Sci. Food Agric.* 2009; 89: 1565–1573.
274. Padmanabhan SY and Ganguly D. Relation between the age of rice plant and its susceptibility to *Helminthosporium* and blast diseases. *Proceedings of the Indian Academy of Sciences* 1954; Section B, 39 (2). pp. 44-50.
275. Pal TK, Bhattacharya S and Chakraborty K. Induction of Systemic Resistance in Rice by Leaf Extract of *Cymbopogan citrus* and *Ocimum sanctum* against Sheath Blight Disease. *Archives of Applied Science Research* 2011; 3(1): 392-400.

276. Panchuk II, Zentgraf U, Volkov RA. Expression of the Apx gene family during leaf senescence of *Arabidopsis thaliana*. *Planta* 2005 Nov; 222(5): 926-32.
277. Park SW, Kaimoyo E, Kumar D, Mosher S, Klessig DF. Methyl Salicylate Is a Critical Mobile Signal for Plant Systemic Acquired Resistance. *Science* 2007; 318 (5847): 113-116.
278. Passardi F, Cosio C, Penel C, Dunand C. Peroxidases have more functions than a Swiss army knife. *Plant Cell Reports* 2005; 24: 255–265.
279. Pattnaik MM, Kar M and Sahu RK. Bioefficacy of some plant extracts on growth parameters and control of diseases in *Lycopersicum esculentum*. *Asian Journal of Plant Science and Research*, 2012, 2 (2):129-142.
280. Paul PK and Sharma PD. *Azadirachta indica* leaf extract induces resistance in barley against leaf stripe disease. *Physiol. Mol. Plant Pathol* 2002; 61: 3-13.
281. Pearce G, Bhattacharya R, Chen YC, Barona G, Yamaguchi Y and Ryan CA. Isolation and Characterization of Hydroxyproline-Rich Glycopeptide Signals in Black Nightshade Leaves. *Plant Physiology* 2009; Vol. 150, pp. 1422–1433.
282. Peever TL, Higgins VJ. Electrolyte Leakage, Lipoxxygenase, and Lipid Peroxidation Induced in Tomato Leaf Tissue by Specific and Nonspecific Elicitors from *Cladosporium fulvum*. *Plant Physiol.* 1989 Jul; 90(3): 867-75.
283. Percival GC. Induction of systemic acquired disease resistance in plants: Potential implications for disease management in urban forestry. *Journal of Arboriculture* 2001; 27(4): 181-192.
284. Perez C, Pauli M, Bazerque P. An antibiotic assay by the agar-well diffusion method. *Acta Biologica Medica Experimentalis* 1990; 15:113-115.
285. Perumal G, Saravanan G, Ragupathi T, Muthusami S. Antimicrobial activity of selected plant extracts against plant pathogens. *Asian Journal of Bio Science* 2008; Vol. 3, No. 1, pp. 130-132.
286. Pfaffl MW. A new mathematical model for relative quantification in real-time RT–PCR. *Nucleic acids research* 2001; 29(9): e45-e45.
287. Pieterse CMJ, Van Loon LC. Salicylic acid-independent plant defense pathways. *Trends in Plant Science* 1999; 4: 52-58.

- 
288. Pilet PE, Jollès J and Jollès P. Lysozyme in Growing Plant Tissue Cultured *in vitro*. Zeitschrift für Pflanzenphysiologie 1983; Volume 111, Issue 1, Pages 91–94.
289. Pilloff RK, Devadas SK, Enyedi A and Raina R. The *Arabidopsis* gain- of- function mutant dll1 spontaneously develops lesions mimicking cell death associated with disease. The Plant Journal 2002; 30(1): 61-70.
290. Poiatti VAD, Dalmas FR, Astarita LV. Defense mechanisms of *Solanum tuberosum* L. in response to attack by plant-pathogenic bacteria. Biological Research 2009; 42: 205–215.
291. Porta H and Rocha-Sosa M. Plant Lipoxygenases. Physiological and Molecular Features. Plant Physiology 2002; vol. 130(1): 15-21.
292. Portz D, Koch E and Slusarenko AJ. Effects of garlic (*Allium sativum*) juice containing allicin on *Phytophthora infestans* and downy mildew of cucumber caused by *Pseudoperonospora cubensis*. The Downy Mildews - Genetics, Molecular Biology and Control 2008; pp 197-206.
293. Pretorius ZA, Rijkenberg FHJ and Wilcoxson RD. Effects of growth stage, leaf position, and temperature on adultplant resistance of wheat infected by *Puccinia recondita* f.sp. *tritici*. Plant Pathol. 1988; 37: 36–44.
294. Proctor VA and Cunningham FE. The chemistry of lysozyme and its use as a food preservative and a pharmaceutical. Crit Rev Food Sci 1988; 26: 359–395.
295. Pshenichnov E, Khashimova N, Akhunov A, Golubenko Z, Stipanovic RD. Participation of Chitin-Binding Peroxidase Isoforms in the Wilt Pathogenesis of Cotton. American Journal of Plant Sciences 2011; Vol. 2, No. 1, pp. 43-49.
296. Purwar S, Gupta SM, Kumar A. Enzymes of Phenylpropanoid Metabolism Involved in Strengthening the Structural Barrier for Providing Genotype and Stage Dependent Resistance to Karnal Bunt in Wheat. American Journal of Plant Science 2012; 3: 261-267.
297. Queiroz C, Lopes MLM, Fialho E and Valente-Mesquita VL. Polyphenol Oxidase: Characteristics and Mechanisms of Browning Control. Food Reviews International 2008; 24(4): 361-375.

- 
298. Quiroga M, Guerrero C, Botella MA, Barceló A, Amaya I, Medina M *et al.* A tomato peroxidase involved in the synthesis of lignin and suberin. *Plant Physiology*, 2000; 122(4): 1119-1128.
299. Rance´ I, Fournier J and Esquerre´-Tugaye MTRS. The incompatible interaction between *Phytophthora parasitica* var. *nicotianae* race 0 and tobacco is suppressed in transgenic plants expressing antisense lipoxygenase sequences. *Proc. Natl. Acad. Sci.* 1998; Vol. 95, pp. 6554–6559.
300. Raj SN, Sarosh BR, Shetty HS. Induction and accumulation of polyphenol oxidase activities as implicated in development of resistance against pearl millet downy mildew disease. *Functional Plant Biology* 2006; 33(6): 563–571.
301. Rajasekaran C, Meignanam E, Vijayakumar V, Kalaivani T, Ramya S, Premkumar N, Siva R, Jayakumararaj R. Investigations on Antibacterial Activity of Leaf Extracts of *Azadirachta indica* A.Juss (Meliaceae): A Traditional Medicinal Plant of India *Ethnobotanical Leaflets* 2008; 12: 1213-1217.
302. Rajendran L, Samiyappan R. Endophytic *Bacillus* species confer increased resistance in cotton against damping off disease caused by *Rhizoctonia solani*. *Plant Pathology Journal* 2008; 7(1): 1-12.
303. Ramos Solano B, Barriuso Maicas J, Pereyra de la Iglesia MT, Domenech J, Gutiérrez Mañero FJ. Systemic disease protection elicited by plant growth promoting rhizobacteria strains: relationship between metabolic responses, systemic disease protection, and biotic elicitors. *Phytopathology* 2008; 4: 451- 457.
304. Rancé I, Fournier J and Esquerré-Tugayé MT. The incompatible interaction between *Phytophthora parasitica* var. *nicotianaerace* 0 and tobacco is suppressed in transgenic plants expressing antisense lipoxygenase sequences. *Proc Natl Acad Sci USA* 1998; 95(11): 6554–6559.
305. Rao DVK, Shingh K, Chabra PC, Ramanujulu G. *In vitro* antibacterial activity of neem oil. *Indian Journal of Medical Research* 1986; 84: 314-316.\
306. Raskin I. Salicylate, a new plant hormone. *Plant physiology* 1992; 99(3): 799-803.
307. Reddy SA, Bagyaraj DJ, Kale RD. Management of tomato bacterial spot caused by *Xanthomonas campestris* using vermicompost. *Journal of Biopesticides* 2012; 5(1): 10-13.

- 
308. Regalado AP, Pinheiro C, Vidal S, Chaves I, Ricardo CP, Rodrigues-Pousada C. The *Lupinus albus* class-III chitinase gene, IF3, is constitutively expressed in vegetative organs and developing seeds. *Planta*. 2000; 210(4): 543-50.
309. Rettinassababady C, Ramadoss N, Thirumeni S. Effect of plant extract in the control of powdery mildew of blackgram (*Erysiphe polygoni* DC). *Agric Sci Digest* 2000; 20(3): 193-194.
310. Reuveni M, Tuzun S, Cole JS, Siegel MR and Kuc J. The effects of plant age and leaf position on the susceptibility of tobacco to blue mold caused by *Peronospora tabacina*. *Phytopathology* 1986; 76: 455–458.
311. Reuveni R, Shimoni M, Karchi Z, Kuc J. Peroxidase activity as a biochemical marker for resistance of muskmelon (*Cucumis melo*) to *Pseudoperonospora cubensis*. *Phytopathology* 1992; 82(7): 749-753.
312. Richter C, Dirks ME, Gronover CS, Prüfer D, Moerschbacher BM. Silencing and heterologous expression of PPO-2 indicate a specific function of a single polyphenol oxidase isoform in resistance of dandelion (*Taraxacum officinale*) against *Pseudomonas syringae* pv. *tomato*. *Mol Plant Microbe Interact*. 2012 Feb; 25(2): 200-10.
313. Rico A and Preston GM. *Pseudomonas syringae* pv. *tomato* DC3000 Uses Constitutive and Apoplast-Induced Nutrient Assimilation Pathways to Catabolize Nutrients That Are Abundant in the Tomato Apoplast. *MPMI* 2008; Vol. 21, No. 2, pp. 269–282.
314. Rivero M, Furman N, Mencacci N, Picca P, Toum L, Lentz E, Bravo-Almonacid F, Mentaberry A. Stacking of antimicrobial genes in potato transgenic plants confers increased resistance to bacterial and fungal pathogens. *Journal of Biotechnology* 2012; Volume 157, Issue 2, Pages 334–343.
315. Roach DA. Environmental effects on age-dependent mortality: a test with a perennial plant species under natural and protected conditions. *Exp Gerontol*. 2001; 36(4-6): 687-694.
316. Rodrigues E, Schwan-Estrada KRF, Fiori ACG, Stangarlin JR, Cruz MES. Fungitoxicity, phytoalexins elicitor activity and protection of lettuce in organic growth against *Sclerotinia sclerotiorum* by ginger extract. *Summa Phytopathologica*. 2007; 33: 20-24.

- 
317. Ros Barceló A, Pomar F. Plant peroxidases: Versatile catalysts in the synthesis of bioactive natural products. *Studies in Natural Products Chemistry* 2002; Volume 27, Part H, Pages 735–791.
318. Ross AF. Systemic acquired resistance induced by localized virus infections in plants. *Virology* 1961; 14: 340–358.
319. Roumen EC. Effect of leaf age on components of partial resistance in rice to leaf blast. *Euphytica* 1992; 63: 271 -279.
320. Roumen EC, Bonman BC, Parlevliet JE. Leaf age related partial resistance to *Pyricularia oryzae* in tropical lowland rice cultivars as measured by the number of sporulating lesions. *Phytopathol.* 1992; 82: 1414-1417.
321. Rupe JC and Gbur EE Jr. Effects of plant age, maturity group, and environment on disease progress of sudden death syndrome of soybean. *Plant Dis.* 1995; 79: 139–143.
322. Russo VM, Russo BM, Peters M, Perkins-Veazie P and Cartwright B. Interaction of *Colletotrichum orbiculare* with thrips and aphid feeding on watermelon seedlings. *Crop Protection* 1997; Volume 16, Issue 6, Pages 581–584.
323. Rwegasira GM and Rey CME. Response of Selected Cassava Varieties to the Incidence and Severity of Cassava Brown Streak Disease in Tanzania. *Journal of Agricultural Science* 2012; Vol. 4, No. 7: 237-245.
324. Sahbaz R, Lieberei R, Aniszewski T. Polyphenol oxidase (PPO, catecholase) activity during germination and early seedling growth of Cicer milkvetch (*Astragalus cicer* L.). *Journal of Applied Botany and Food Quality* 2009; 82: 163–169.
325. Sahoo MR, Kole PH, Dasgupta M, Mukherjee A. Changes in phenolics, polyphenol oxidase and its isoenzyme pattern in relation to resistance in taro against *Phytophthora colocasiae*. *Journal of Phytopathology* 2009; 157: 145-153.
326. Sailaja PR, Podile AR, Reddanna P. Biocontrol strain of *Bacillus subtilis* AF 1 rapidly induces lipoxygenase in groundnut (*Arachis hypogaea* L.) compared to crown rot pathogen *Aspergillus niger*. *European Journal of Plant Pathology* 1998; 104(2): 125-132.
327. Sakthivel M, Karthikeyan N, Palani P. Detection and Analysis of Lysozyme Activity in some tuberous plants and *Calotropis Procera*'s latex. *Journal of Phytochemistry* 2010; 2(11): 65-72.



328. Salas JJ, Willams M, Harwood JL & Sánchez J. Lipoxygenase activity in olive (*Olea europaea*) fruit. Journal of the American Oil Chemists' Society 1999; 76(10): 1163-1168.
329. Salzer P, Bonanomi A, Beyer K, Vögeli-Lange R, Aeschbacher RA, Lange J, Wiemken A, Kim D, Cook DR, Boller T. Differential expression of eight chitinase genes in *Medicago truncatula* roots during mycorrhiza formation, nodulation, and pathogen infection. Mol Plant Microbe Interact. 2000; 13(7):763-77.
330. Samaranayake YH, Samaranayake LP, Pow EHN, Beena VT, Yeung KWS. Antifungal Effects of Lysozyme and Lactoferrin against Genetically Similar, Sequential *Candida albicans* Isolates from a Human Immunodeficiency Virus-Infected Southern Chinese Cohort. J Clin Microbiol 2001; 39: 3296–3302.
331. Sandhu SS, Mazzafera P, Ernesto Azini LE, Ricardo Bastos CR, Colombo CA. Lipoxygenase activity in Brazilian rice cultivars with variable resistance to leaf blast disease. Bragantia Campinas 2007; v.66, n.1, p.27-30.
332. Saravitz DM and Siedow JN. The Lipoxygenase Isozymes in Soybean (*Glyche max* (L.) Merr.) Leaves. Plant Physiol. 1995; 107: 535-543.
333. Sarowar S, Kim EN, Kim YJ, Ok SH, Kim KD, Hwang BK, Shin JS. Overexpression of a pepper ascorbate peroxidase-like 1 gene in tobacco plants enhances tolerance to oxidative stress and pathogens. Plant Science 2005; 169: 55–63.
334. Sarvamangala HS, Govindaiah And Datia RK. Evaluation of plant extracts for the control of fungal diseases of mulberry. Indian phytopathology 1993; Vol 46, No 4, 398-401.
335. Sasaki K, Hiraga S, Ito H, Seo S, Matsui H & Ohashi Y. A wound-inducible tobacco peroxidase gene expresses preferentially in the vascular system. Plant and cell physiology 2002; 43(1): 108-117.
336. Satya VK, Gayathiri S, Bhaskaran R, Paranidharan V and Velazhahan R. Induction of systemic resistance to bacterial blight caused by *Xanthomonas campestris* pv. *malvacearum* in cotton by leaf extract from a medicinal plant zimmu (*Allium sativum* L. × *Allium cepa* L.). Archives Of Phytopathology And Plant Protection 2007; Vol. 40, No. 5, pp. 309-322.
337. Savary S. Decrease by plant development and leaf age of susceptibility of groundnut to rust (*Puccinia arachidis*) in a susceptible cultivar. Neth. J. Pl. Path. 1987; 93: 25-31.

338. Sawahel W and Hagan A. Generation of white mold disease-resistant sunflower plants expressing human lysozyme gene. *Biologia Plantarum* 2006; 50 (4): 683-687.
339. Sawasdipuksa N, Lei Z, Sumner LW, Niyomploy P, Sangvanich P. A Lysozyme with Antifungal Activity from *Pithecellobium dulce* Seeds. *Food Technology and Biotechnology* 2011; 49(4): 489.
340. Schaad NW, Jones JB, Chun W. *Laboratory Guide for Identification of Plant Pathogenic Bacteria*. St. Paul, MN, United States of America: APS Press; 2001.
341. Schmitt NF and VanMechelen JR. Expression of lipoxygenase isoenzymes in developing barley grains. *Plant Science* 1997; Volume 128, Issue 2, Pages 141–150.
342. Schweizer P, Buchala A, Dudler R and Métraux JP. Induced systemic resistance in wounded rice plants. *The Plant Journal* 1998; Volume 14, Issue 4, pages 475–481.
343. Scialabba A, Bellani LM, Dell'Aquila A. Effects of ageing on peroxidase activity and localization in radish (*Raphanus sativus* L.) seeds. *Eur J Histochem*. 2002; 46(4): 351-8.
344. Sels J, Mathys J, De Coninck B, Cammue B and De Bolle MF. Plant pathogenesis-related (PR) proteins: a focus on PR peptides. *Plant Physiology and Biochemistry* 2008; 46(11): 941-950.
345. Sharifi-Sirchi GR, Beheshti B, Hosseinipour A, Mansouri M. Priming against Asiatic citrus canker and monitoring of *PR* genes expression during resistance induction. *African Journal of Biotechnology* 2011; 10(19): 3818-3823.
346. Shen SR, Wang WJ, Lai XF. Study on purification and properties of chitin-binding proteins from *Raphanus sativus*. *J HuaiHai Inst Tech* 2003; 12: 47–50.
347. Sherf BA, Bajar AM, Kolattukudy PE. Abolition of an Inducible Highly Anionic Peroxidase Activity in Transgenic Tomato. *Plant Physiol*. 1993 Jan; 101(1):201-208.
348. Shibata Y, Kawakita K and Takemoto D. Age-Related Resistance of *Nicotiana benthamiana* Against Hemibiotrophic Pathogen *Phytophthora infestans* Requires Both Ethylene- and Salicylic Acid-Mediated Signaling Pathways. *Molecular Plant-Microbe Interactions* 2010; 23(9): 1130–1142.
349. Shi Z, Maximova S, Liu Y, Verica J, Guiltinan MJ. The Salicylic Acid Receptor NPR3 Is a Negative Regulator of the Transcriptional Defense Response during Early Flower development in *Arabidopsis*. *Molecular Plant* 2012; doi:10.1093/mp/sss091. [In-press]

350. Singh UP and Prithviraj B. Neemazal, a product of neem (*Azadirachta indica*), induces resistance in pea (*Pisum sativum*) against *Erysiphe pisi*. *Physiological and Molecular Plant Pathology* 1997; Volume 51, Issue 3, Pages 181–194.
351. Sivakumar G, Sharma RC. Induced biochemical changes due to seed bacterization by *Pseudomonas fluorescens* in maize plants. *Indian Phytopathology* 2003; 56: 134-137.
352. Slaughter A, Daniel X, Flors V, Luna E, Hohn B and Mauch-Mani B. Descendants of Primed Arabidopsis Plants Exhibit Resistance to Biotic Stress. *Plant Physiol.* 2012 February; 158(2): 835–843.
353. Solanki MK, Singh N, Singh RK, Singh P, Srivastava AK, Kumar S, Kashyap PL and Arora DK. Plant defense activation and management of tomato root rot by a chitin-fortified *Trichoderma/Hypocrea* formulation. *Phytoparasitica* 2011; Volume 39, Issue 5, pp 471-481.
354. Sreedevi B, Charitha DM, Saigopal DVR. Induction of defense enzymes in *Trichoderma harzianum* treated groundnut plants against *Macrophomina phaseolina*. *Journal of Biological Control* 2011; Volume: 25, Issue 1, 33- 39.
355. Stangarlin JA, Kuhn OJ, Assi L and Schwan-Estrada KRF. Control of plant diseases using extracts from medicinal plants and fungi. *Science against microbial pathogens: communicating current research and technological advances* A. Méndez-Vilas (Ed.) 2011; 1033-1042.
356. Stout MJ, Workman KV, Bostock RM, Duffey SS. Stimulation and attenuation of induced resistance by elicitors and inhibitors of chemical induction in tomato (*Lycopersicon esculentum*) foliage. *Entomologia Experimentalis et Applicata* 1998; Volume 86, Issue 3, pages 267–279.
357. Subapriya R, Nagini S. Medicinal properties of neem leaves: a review. *Curr Med Chem Anticancer Agents* 2005; 5: 149-156.
358. Subramani D, Rajanaika, Chinnaswamy KKK, Singh S, Kumar V, Kumar P, Bhat SS, Jayarama. Comparative efficacy of plant products on the spore germination and disease incidence of coffee leaf rust pathogen. *Acta Biologica Indica* 2012; 1(1): 69-75.
359. Subramanian S, Sangha JS, Gray BA, Singh RP, Hiltz D, Critchley AT and Prithviraj B. Extracts of the marine brown macroalga, *Ascophyllum nodosum*, induce jasmonic acid dependent systemic resistance in *Arabidopsis thaliana* against *Pseudomonas syringae* pv.

- 
- tomato* DC3000 and *Sclerotinia sclerotiorum*. European journal of plant pathology 2011; 131(2): 237-248.
360. Sukanya SL, Sudisha J, Hariprasad P, Niranjana SR, Prakash HS, Fathima SK. Antimicrobial activity of leaf extracts of Indian medicinal plants against clinical and phytopathogenic bacteria. African Journal of Biotechnology 2009; 8(23): 6677-6682.
361. Taggar GK, Gill RS, Gupta AK, Sandhu JS. Fluctuations in peroxidase and catalase activities of resistant and susceptible black gram (*Vigna mungo* (L.) Hepper) genotypes elicited by *Bemisia tabaci* (Gennadius) feeding. Plant Signal Behav. 2012; 7(10): 1321-9.
362. Taheri P. Molecular and Cytological Aspects of Tomato-Rhizoctonia solani Interaction. In III International Symposium on Tomato Diseases 2010; 914: 453-457.
363. Taheri P and Tarighi S. Riboflavin induces resistance in rice against *Rhizoctonia solani* via jasmonate- mediated priming of phenylpropanoid pathway. Journal of Plant Physiology 2010; 167: 201-208.
364. Taheri P & Tarighi S. The role of pathogenesis-related proteins in the tomato-Rhizoctonia solani interaction. Journal of Botany, 2012; doi:10.1155/2012/137037.
365. Takahama U, Hirotsu M and Oniki T. Age-Dependent Changes in Levels of Ascorbic Acid and Chlorogenic Acid, and Activities of Peroxidase and Superoxide Dismutase in the Apoplast of Tobacco leaves: Mechanism of the Oxidation of Chlorogenic Acid in the Apoplast. Plant Cell Physiol. 1999; 40(7): 716-724.
366. Thipyapong P, Hunt MD, Steffens JC. Antisense downregulation of polyphenol oxidase results in enhanced disease susceptibility. Planta 2004 Nov; 220(1): 105-17.
367. Thipyapong P, Joel DM and Steffens JC. Differential expression and turnover of the tomato polyphenol oxidase gene family during vegetative and reproductive development. Plant Physiology 1997; 113(3): 707-718.
368. Thipyapong P, Melkonian J, Wolfe DW, Steffens JC. Suppression of polyphenol oxidases increases stress tolerance in tomato. Plant Science 2004; Volume 167, issue 4, p. 693-703.
369. Thipyapong P and Steffens JC. Tomato Polyphenol Oxidase (Differential Response of the Polyphenol Oxidase F Promoter to Injuries and Wound Signals). Plant Physiology October 1997; vol. 115, no. 2, 409-418.

- 
370. Thipyapong P, Stout MJ, Attajarusit J. Functional analysis of polyphenol oxidases by antisense/sense technology. *Molecules* 2007 Jul 27; 12(8): 1569-95.
371. Tohamy MRA, Aly AZ, Abd-El-Moity TH, Atia MM and Abd-El-Moneim ML. Evaluation of some plant extracts in control damping-off and mildew diseases of cucumber. *Egypt. J. Phytopathol.* 2002; 30 (2): 71-80.
372. Ton J, Ent SVD, Hulten MV, Pozo M, Oosten VV, Van Loon LC, Mauch-Mani B, Turlings TCJ and Pieterse CMJ. Priming as a mechanism behind induced resistance against pathogens, insects and abiotic stress. *Induced resistance in plants against insects and diseases 2009*; Vol. 44, pp. 3-13.
373. Tonelli MA, Furlan A, Taurian T, Castro S, Fabra A. Peanut priming induced by biocontrol agents. *Physiological and Molecular Plant Pathology* 2011; 75(3): 100-105.
374. Tyagi M, Kayastha AM, Sinha B. The role of peroxidase and polyphenol oxidase isoenzymes in wheat resistance to *Alternaria tritricina*. *Biologia Plantarum* 2000; 43(4): 559-562.
375. Utkhede R and Koch C. Biological treatments to control bacterial canker of greenhouse tomatoes. *BioControl* 2004; 49: 305–313.
376. Valentines MC, Vilaplana R, Torres R, Usall J, Larrigaudière C. Specific roles of enzymatic browning and lignifications in apple disease resistance. *Postharvest Biology and Technology* 2005; 36: 227–234.
377. Vallad GE and Goodman RM. Systemic Acquired Resistance and Induced Systemic Resistance in Conventional Agriculture. *Crop Sci.* 2004; 44: 1920–1934.
378. Van Loon LC. Induced resistance in plants and the role of pathogenesis-related proteins. *European Journal of Plant Pathology* 1997; 103: 753–765.
379. Van Loon LC, Pierpoint WS, Boller TH and Conejero V. Recommendations for naming plant pathogenesis-related proteins. *Plant Mol. Biol. Report* 1994; 12: 245-264.
380. Van Loon LC, Rep M, Pieterse CMJ. Significance of inducible defense-related proteins in infected plants. *Annual Review of Phytopathology* 2006; 44: 135- 162.
381. Van Loon LC and Van Strien EA. The families of pathogenesis-related proteins, their activities, and comparative analysis of PR-1 type proteins. *Physiol. Mol. Plant Pathol.* 1999; 55: 85-97.

382. Van Peer R, Niemann GJ and Schippers B. Induced resistance and phytoalexin accumulation in biological control of Fusarium wilt of carnation by *Pseudomonas* sp. strain WCS417r. *Phytopathology* 1991; 81: 728-734.
383. Van Wees SCM, Luijendijk M, Smoorenburg I, Van Loon LC and Pieterse CMJ. Rhizobacteria-mediated induced systemic resistance (ISR) in *Arabidopsis* is not associated with a direct effect on expression of known defense-related genes but stimulates the expression of the jasmonate-inducible gene *Atvsp* upon challenge. *Plant Mol. Biol.* 1999; 41: 537-549.
384. Vardar F and Unal M. Immunolocalization of Lipoxygenase in the Anther Wall Cells of *Lathyrus undulatus* Boiss. during Programmed Cell Death. *Not Bot Hort Agrobot Cluj.* 2011; 39(1): 71-78.
385. Vaughn KC and Duke SO. Function of polyphenol oxidase in higher plants. *Physiol. Plant.* 1984; 60: 106-112.
386. Vaughan SF and Gardner HW. Lipoxygenase-derived aldehydes inhibit fungi pathogenic on soybean. *Journal of Chemical Ecology* 1993; 19(10): 2337-2345.
387. Veljovic-Jovanovic S, Kukavica B, Stevanovic B, Navari-Izzo F. Senescence- and drought-related changes in peroxidase and superoxide dismutase isoforms in leaves of *Ramonda serbica*. *J Exp Bot.* 2006; 57(8): 1759-68.
388. Vellosillo T, Aguilera V, Marcos R, Bartsch M, Vicente J, Cascón T, Hamberg M and Castresana C. Defense activated by 9-lipoxygenase-derived oxylipins requires specific mitochondrial proteins. *Plant Physiology* February 2013; vol. 161, no. 2, 617-627.
389. Venkatesan S, Radjacomare SR, Nakkeeran S and Chandrasekaran A. Effect of biocontrol agent, plant extracts and safe chemicals in suppression of *Mungbean Yellow Mosaic Virus* (MYMV) in black gram (*Vigna mungo*). *Archives Of Phytopathology And Plant Protection* 2010; Volume 43, Issue 1, 59-72.
390. Verhagen BWM, Glazebrook J, Zhu T, Chang HS, Van Loon LC and Pieterse CMJ. The transcriptome of rhizobacteria-induced systemic resistance in *Arabidopsis*. – *Mol. Plant-Microbe Interact.* 2004; 17: 895-908.
391. Vicente J, Tomás Cascón T, Begonya Vicedo B, Pilar García-Agustín P, Mats Hamberg M and Carmen Castresana C. Role of 9-Lipoxygenase and  $\alpha$ -Dioxygenase Oxylipin

- Pathways as Modulators of Local and Systemic Defense. *Mol. Plant.* 2012; 5(4): 914-928.
392. Visker MHPW, Keizer LCP, Budding DJ, Van Loon LC, Colon LT and Struik PC. Leaf Position Prevails Over Plant Age and Leaf Age in Reflecting Resistance to Late Blight in Potato. *Phytopathology* 2003; Vol. 93, No. 6, 666-674.
393. Vloutoglou I and Kalogerakis SN. Effects of inoculum concentration, wetness duration and plant age on development of early blight (*Alternaria solani*) and on shedding of leaves in tomato plants. *Plant Pathology* 2000; 49: 339-345.
394. Voet D and Voet JG. Enzymatic catalysis. Chapter 15. In: *Biochemistry. USA.* John Wiley and Sons. 2011; 306-385.
395. Wang J, Constabel CP. Polyphenol oxidase overexpression in transgenic *Populus* enhances resistance to herbivory by forest tent caterpillar (*Malacosoma disstria*). *Planta.* 2004 Nov; 220(1): 87-96.
396. Wang J, Jian Li, Jiankang Cao, Jiang W. Antifungal activities of neem (*Azadirachta indica*) seed kernel extracts on postharvest diseases in fruits. *African Journal of Microbiology Research* 2010; 4(11): 1100-1104.
397. Wang S, Ng TB, Chen T, Lin D, Wu J, Rao P, Ye X. First report of a novel plant lysozyme with both antifungal and antibacterial activities. *Biochem Biophys Res Commun.* 2005; 327(3): 820-827.
398. Wang S, Shao B, Chang J, Rao P. Isolation and identification of a plant lysozyme from *Momordica charantia* L. *European Food Research and Technology* 2011; 232(4): 613-619.
399. Wang S, Ye X, Rao P. Isolation of a novel leguminous lysozyme and study on the antifungal activity. *Food Research International* 2012; Volume 47, Issue 2, Pages 341–347.
400. Wang Y, Wisniewski M, Meilan R, Cui M, Webb R & Fuchigami L. Overexpression of cytosolic ascorbate peroxidase in tomato confers tolerance to chilling and salt stress. *Journal of the American Society for Horticultural Science* 2005; 130(2): 167-173.
401. Ward EWB, Stössel R and Lazarovits G. Similarities between age-related and race-specific resistance of soybean hypocotyls to *Phytophthora megasperma* var. *sojae*. *Phytopathology* 1981; 71: 94–97.

- 
402. Wielgoss A and Kortekamp A. Comparison of *PR1* expression in grapevine cultures after inoculation with a host- and a non-host pathogen. *Vitis* 2006; 45(1): 9–13.
403. Welinder KG, Justesen AF, Kjaersgård IV, Jensen RB, Rasmussen SK, Jespersen HM, Duroux L. Structural diversity and transcription of class III peroxidases from *Arabidopsis thaliana*. *Eur J Biochem.* 2002; 269(24): 6063-81.
404. Whalen MC. Host defence in a developmental context. *Molecular Plant Pathology* 2005; 6: 347–360.
405. Wu HY, Duan YX. Defense response of soybean (*Glycine max*) to soybean cyst nematode (*Heterodera glycines*) race 3 infection. 2011; v. 21(2): p. 165-170.
406. Wu Q, Hou MM, Li LY, Liu LJ, Hou YX, Liu GZ. Induction of pathogenesis-related proteins in rice bacterial blight resistant gene xa21-mediated interactions with *Xanthomonas oryzae* pv. *oryzae*. *Journal of Plant Pathology* 2011; Vol 93, No 2, doi: 10.4454/jpp.v93i2.1201.
407. Xiang T, Zong N, Zou Y, Wu Y, Zhang J, Xing W, Li Y, Tang X, Zhu L., Chai J and Zhou JM. *Pseudomonas syringae* Effector AvrPto Blocks Innate Immunity by Targeting Receptor Kinases. *Current Biology* 2008; 18(1): 74-80.
408. Yan Z, Reddy MS, Ryu CM, McInroy JA, Wilson M, Kloepper JW. Induced systemic protection against tomato late blight elicited by plant growth-promoting rhizobacteria. *Phytopathology* 2002; 92(12): 1329-33.
409. Yang HR, Liu HT, Tang K and Huang WD. Role of Lipoxygenase and Allene Oxide Synthase in Wound-Inducible Defense Response of Pea. *Russian Journal of Plant Physiology* 2011; Vol. 58, No. 2, pp. 238–247.
410. Ye XS, Pan SQ, Kuc J. Activity, isozyme pattern, and cellular localization of peroxidase as related to systemic resistance of tobacco to blue mold (*Peronospora tabacina*) and to tobacco mosaic virus. *Phytopathology* 1990; 80(12): 1295-1299.
411. Yeni IJ, Adebisi AO, Ijadunola JA. Antifungal effects of four tropical plant aqueous and ethanol extracts on post harvest rot of tomato (*Lycopersicon esculentum*) in Ado-Ekiti, Nigeria. *New York Science Journal* 2011; 4(1): 64-68.
412. Yeni IJ, Dele OS, Ademola IJ, Adeniran AJ. Allelopathic effect of leaf extract of *Azadirachta indica* and *Chromolaena odorata* against post harvest and transit rot of



- tomato (*Lycopersicon esculentum* L). Journal of American Science 2010; 6(12): 1595-1599.
413. Yi HB, Yi MA, Choe HT. Changes in lipoxygenase properties and activity related to post germinative growth and senescence in oat (*Avena sativa* L. cv. *Victory 1*). Journal of plant biology 2005; 48(4): 429-439.
414. Yoshida K, Kaothien P, Matsui T, Kawaoka A and Shinmyo A. Molecular biology and application of plant peroxidase genes. Applied microbiology and biotechnology 2003; 60(6): 665-670.
415. Zeier J. Age-dependent variation of local and systemic defence responses in *Arabidopsis* leaves towards an avirulent strain of *Pseudomonas syringae*. Physiological and Molecular Plant Pathology 2005; 66: 30–39.
416. Zhang J, Shao F, Li Y, Cui H, Chen L, Li H, *et al.*. A *Pseudomonas syringae* Effector Inactivates MAPKs to Suppress PAMP-Induced Immunity in Plants. Cell Host & Microbe 2007; 1(3): 175-185.
417. Zhao J, Song L, Li C, Zou H, Ni D, Wang W, Xu W. Molecular cloning of an invertebrate goose-type lysozyme gene from *Chlamys farreri*, and lytic activity of the recombinant protein. Mol Immunol. 2007; 44(6): 1198-208.
418. Zhao J, Wang Y, Zhang J, Han Y, Yang Z, and Feng W. Induction of defensive enzymes (isozymes) during defense against two different fungal pathogens in pear calli. African Journal of Biotechnology 2012; Vol. 11(72), pp. 13670-13677.
419. Zhao Z, Haines K, Mellersh D, Neumann M and Cameron RK. Age-related resistance to *Pseudomonas syringae* pv. *tomato* is associated with the transition to flowering in *Arabidopsis* and is effective against *Peronospora parasitica*. Physiological and molecular plant pathology 2005; 66(6): 222-231.
420. Zimmerli L, Jakab G, Métraux JP and Mauch-Mani B. Potentiation of pathogen-specific defense mechanisms in *Arabidopsis* by b-aminobutyric acid. Proc. Natl. Acad. Sci. USA. 2000; 97: 12920-12925.
421. Zimmerli L, Métraux JP and Mauch-Mani B. b-Aminobutyric acid-induced protection of *Arabidopsis* against the necrotrophic fungus *Botrytis cinerea*. Plant Phys. 2001; 126: 517-523.

THIS PAGE IS INTENTIONALLY LEFT BLANK.