

Research publications of last 10 years

2012-13

1. Ahamad A, Kausik S, Ramamurthy VV, Lakhanpaul S, Ramani R, Sharma KK and Vidyarthi AS (2012). Mouthparts and stylet penetration of lac insect *Kerria lacca* (Kerr) (Hemiptera; Tachardiidae). *Arthropod Structure and Development* **41**: 435–441.
2. Ansari MF, Sarkhel G, Goswami DN and Baboo B (2012). Effect of butylated melamine formaldehyde resin on the coating properties of shellac-rosin blends, *Asia Pacific Coatings Journal* **25**(5): 35–8.
3. Ghosal S (2012). *Kusmi* lac yield in winter season as affected by weather and directional effect on *ber* (*Zizyphus mauritiana*) trees. *Indian Journal of Agricultural Sciences* **82**(4): 384–387.
4. Jaiswal AK, Pal G, Singh JP and Patel Bharati (2012). Lac production growth analysis for the state of Odisha. *Bioved* **23**(1): 1–5.
5. Jena A, Vidyarthi AS, Ramani R and Ramamurthy VV (2011). An illustrated diagnostics of lac insect *Kerria lacca* (Kerr) as exemplified through advanced staining and microscopy techniques. *Indian Journal of Entomology* **73**(3): 235–242.
6. Kaushik S, Pushker AK, Lakhanpaul S, Sharma KK, Ramani R (2012). Investigations on some of the important host plants of *Kerria lacca* with reference to phloem distance. *EurAsian Journal of BioSciences* **6**: 32–38.
7. Meena SC, Sharma KK, Mohanasundaram A and Monobrullah Md (2012). *Icerya aegyptiaca* Douglas: A new pest of *Flemingia semialata* and as an alternate host of *Aprostocetus purpureus* (Cameron) in lac ecosystem. *Indian Journal of Entomology* **74**(4): 404–405.
8. Mohanasundaram A, Sharma KK and Meena SC (2012). New record of *Lawana conspersa* (Walker) (Homoptera: Flatidae) as a pest of lac host plants. *Indian Journal of Entomology* **74**(4): 399–401.
9. Nandkishore T, Aggarwal N, Kumar R and Gopal M (2012). Synthesis of 2-furyl-4-arylidene-5(4H)-oxazolones as new potent antibacterial agents against phyto-pathogenic and nitrifying bacteria. *Journal of Environmental Science and Health, Part B* **47**: 326–335.

10. Prasad N, Sharma KR, Tewari JC, Gupta R and Thomas M (2012). Mechanization of natural gum and resin tapping. *Journal of Non-Timber Forest Products* **19**(4): 279–289.
11. Ray DP, Shrivastava S, Singh RP and Dutta D (2012). GC-MS analysis of Marigold (*Tagetes erecta* L) flower oil. *International Journal of Agriculture Environment and Biotechnology* **5**(3): 215–218.
12. Shrivastava S, Ray DP and Singh RP (2012). Antifeedant activity of essential oil and carbazole derivatives of *Murraya koenigii* (L) Spreng leaves against *Spodoptera litura* (Fab.). *Pesticide Research Journal* **23**(2): 137–139.
13. Siddiqui MZ & Mazumdar PM (2012). Antiinflammatory activity of resinoids of *Boswellia serrata* in rats. *Indian Journal of Veterinary Research* **21**(1): 22–28.
14. Siddiqui MZ (2011). *Boswellia serrata*, A potential antiinflammatory agent: An overview. *Indian Journal of Pharmaceutical Sciences* **73**(3): 255–61.
15. Singh RK, Singh BP, Baboo B and Singh B (2012). Growth and biomass of *ber* (*Ziziphus mauritiana*) as influenced by various soil moisture conservation techniques under rainfed condition. *Indian Journal of Soil Conservation* **40**(1): 90–94.
16. Yadav SK and Singh RK (2011). Effect of plant density on lac yield of *Flemingia semialata* Roxb. *Annals of Agricultural Research, New Series* **32**(3 & 4): 124–126.

2013-14

1. Ahmad A, Ramamurthy VV, Sharma KK, Mohanasundaram A, Vidyarthi AS and Ramani R (2013). Three new species of *Kerria* (Hemiptera: Coccoidea: Tachardiidae) from India. *Zootaxa* **3734**(4): 442–452.
2. Ansari MF, Sarkhel G, Goswami DN and Baboo B (2013). Changes in the properties of lac on blending with rosin; effect on storage. *Pigment & Resin Technology* **42**(4): 256–63.
3. Ansari MF, Sarkhel G, Goswami DN and Baboo B (2013). Effect of temperature on coating properties of shellac-novolac blends. *Pigment & Resin Technology* **42**(5): 326–334.
4. Divya YAS, Rai S, Beura CK and Prasad N (2013). Effect of guar gum and gum Arabic addition on functional properties and quality characteristics of chicken nuggets. *Indian Journal of Poultry Science* **48**(1): 58–62.
5. Ghosal S (2012). Effect of weather and application of primary nutrients and liming to

- ber* (*Ziziphus mauritiana*) on winter season (*aghani*) kusmi lac production. *Annals of Entomology* **30**(2): 97–104.
6. Ghosal S (2013). Soil fertility management of established *ber* (*Ziziphus mauritiana*) plantation under lac cultivation. *The Bioscan* **8**(3): 787–790.
 7. Jaiswal AK, Singh JP, Monobrullah Md and Patamajhi P (2013). Residual toxicity of indoxacarb and spinosad on *Aprostocetus purpureus* Cameron and *Tachardiaephagus tachardiae* Howard - The parasitoids of lac insect *Kerria lacca* (Kerr). *Indian Journal of Entomology* **75**(1): 31–33.
 8. Sharma SC and Prasad N (2013). Comparison of gum tapping techniques for gum karaya – A gum of commercial importance. *Journal of Non-Timber Forest Products* **20**(3): 165–170.
 9. Sharma SC, Prasad N, Sharma KR and Chanderlekha (2013). Development and evaluation of freshening tools for enhancing resin yield from Chir Pine (*Pinus roxburghii*) using bore hole method of resin tapping. *Agricultural Engineering Today* **37** (2): 42–50.
 10. Siddiqui MZ and Mazumder PM (2012). Comparative study of hypolipidemic profile of resinoids of *Commiphora mukul* / *Commiphora wightii* from different geographical locations. *Indian Journal of Pharmaceutical Sciences* **74**(5): 422–427.
 11. Siddiqui MZ, Thomas M and Prasad N (2013). Physico-chemical characterization and antioxidant activity of essential oils of guggul (*Commiphora wightii*) collected from Madhya Pradesh. *Indian Journal of Pharmaceutical Sciences* **75**(3): 368–372.
 12. Singh JP, Jaiswal AK and Monobrullah Md (2013). New record of insect pests attacking *Butea monosperma* - A commercial host for culturing lac insect, *Kerria lacca* (Kerr). *Indian Journal of Entomology* **75**(3): 225–231.
 13. Singh JP, Jaiswal AK, Monobrullah Md and Patamajhi P (2013). Effect of broodlac treatment with insecticides on population reduction of predators and parasitoids of lac insect, *Kerria lacca* (Kerr). *National Academy Science Letters* **36**(4): 379–383.
 14. Srivastava S, Ray DP and Giri SK (2013). Extraction of *Palas* dye for its use in textile coloration. *International Journal of Agriculture Environment and Biotechnology* **6**(3): 497–501.
 15. Srivastava S, Ray DP, Pandey SK, Prasad KM, Prasad M and Baboo B (2013). Lac dye: A potential natural food additive. *International Journal of Emerging Technology*

and *Advanced Engineering* **3**(7): 589–594.

16. Thamilarasi K, Kumari K, Anees K, Lohot VD and Ghosh J (2013). Molecular diversity analysis of flower colour variants of *Butea monosperma* (Lam.) Taub. using inter simple sequence repeats. *The Bioscan* **8**(3): 969–974.
17. Yogi RK, Jaiswal AK and Singh RK (2013). Utilization pattern of lac host trees under different socioeconomic environments: a case study in Jharkhand. *Bioved* **24**(2): 1–6.

2014-15

1. Ahmad A, Ramani R, Sharma KK, Vidyarthi AS and Ramamurthy VV (2014). Distinction of Indian commercial lac insect lines of *Kerria* sp. (Homoptera: Coccoidea) based on their morphometrics. *Journal of Insect Science* **14**(1): 263. DOI: 10.1093/jisesa/ieu125
2. Akhtar J, Lal HC, Kumar Y, Singh PK, Ghosh J, Khan Z and Gautam NK (2014). Multiple disease resistance in green gram and black gram germplasm and management through chemicals under rainfed conditions. *Legume Research* **37**(1): 101–109.
3. Ansari MF, Sarkhel G, Goswami DN and Baboo B (2014). Coating properties of shellac modified with synthesized epoxidised-novolac resin. *Pigment and Resin Technology* **43**(5): 314–322.
4. Babu KD, Singh NV, Chandra R, Sharma J, Maity A and Sarkar PC (2014). Effect of surface coating with lac-based formulations on post-harvest quality of pomegranate (*Punica granatum* L) fruits. *International Journal of Tropical Agriculture* **32**(3-4): 835–839.
5. Divya YAS, Prasad N and Ramani R (2014). Textural attributes and characteristic qualities of chevon nuggets containing arabic and guar gum. *Fleischwirtschaft international* **6**: 58–62.
6. Ghosh J, Lohot VD, Singhal V, Ghosal S, Sharma KK and Ramani R (2014). Plant-insect-environment interaction for *Kusmi* lac production on ber (*Ziziphus mauritiana*) varieties. *The Ecoscan* **6**: 407–411.
7. Jaiswal AK and Singh JP (2014). A Review of lac production in India during XI plan. *The Indian Forester* **140**(9): 907–920.
8. Jaiswal AK and Singh JP (2014). New record of transverse lady beetle, *Coccinella transversalis* Fab. occurrence in lac production system on bushy lac host *Flemingia*

- semialata*. Indian Journal of Entomology **76**(4): 359–360.
9. Jaiswal AK, Singh JP and Patamajhi P (2014). Residual toxicity of certain newer pesticides on *Eupelmus tachardiae*-A parasitoid of lac insect *Kerria lacca* (Kerr). National Academy Science Letter **37**(1): 97–101.
 10. Meena SC and Singh V (2013). Bio-efficacy of different insecticides/biopesticides against *Plutella xylostella* in cabbage. *Indian Journal of Plant Protection* **41**(4): 290–295.
 11. Meena SC, Sharma KK, Mohanasundaram A, Verma S and Monobrullah Md (2014). Insect- pest complex of *Flemingia semialata* Roxb-A bushy host for lac cultivation. *The Bioscan* **9**(4): 1375–1381.
 12. Pal G and Yogi RK (2014). Socio-economic status of lac growers in Korba district of Chhattisgarh. *International Journal of Agricultural Science* **10**(1): 167–171.
 13. Pal G, Prasad N, Ghosal S, Pandey SK and Kumar M (2013). Socio-economic profile of lac growers in Ranchi and Khunti district of Jharkhand. *The Journal of Rural and Agricultural Research* **13**(2): 1–5.
 14. Shamim G, Pandey DM, Ramani R and Sharma KK (2014). Identification of Gene related to resin biosynthesis in the Indian lac insect, *Kerria lacca* (Hemiptera: Tachardiidae). *International Journal of Tropical Insect Science* **34**(2): 149–155.
 15. Shamim G, Ranjan SK, Kandasamy T, Mohanasundaram A, Sharma KK and Ramani R (2014). Phylogenetic study of lac insects of *Kerria* sp. using intron length polymorphism (EPIC-PCR). *Journal of Entomology and Zoology Studies* **2**(4): 258–264.
 16. Shamim G, Ranjan SK, Pandey, DM and Ramani R (2014). Biochemistry and Bio Synthesis of insect pigments. *European Journal of Entomology* **11**(2):149–164.
 17. Sharma SC, Prasad N and Pandey SK (2014). Effect of storage material and aging on quality parameters of shellac. *Journal of Agri Search* **1**(2): 92–95.
 18. Sharma SC, Prasad VS and Singh TP (2014). Modification in Pantnagar zero - till ferti - seed drill for pulses. *Agricultural Mechanization in Asia, Africa and Latin America* **45**(1): 23–29.
 19. Siddiqui MZ (2014). Natural gums-An insight into their pharmaceutical potentials. *World Journal of Pharmaceutical Sciences* **2**(9): 890–891.
 20. Siddiqui MZ, Chowdhury AR, Prasad N and Thomas M (2014). *Buchanania lanzan*:

- a species of enormous potentials. *World Journal of Pharmaceutical Sciences* **2**(4): 374–379.
21. Singh JP, Jaiswal AK and Monobrullah Md (2014). Impact of some selected insecticides and bio-pesticides on incidence of predators, parasitoid and productivity of lac insect, *Kerria lacca*. *Indian Journal of Agricultural Sciences* **84**(1): 64–72.
 22. Singh JP, Jaiswal AK and Monobrullah Md (2014). New record of insect pests attacking *Schleichera oleosa*: A commercial host for culturing lac insect, *Kerria lacca* (Kerr) from India. *Proceedings of the National Academy of Sciences, India, Section B: Biological Sciences* **84**: 909–915. DOI 10.1007/s40011-013-0301-8.
 23. Yogi RK and Jaiswal AK (2014). Socio-economic characteristics of lac growers and host trees utilization pattern: A comparative study. *International Journal of Forest Usufructs Management* **15**(2): 37–46.

2015-16

1. Singh RK and Ghosal S (2015). Effect of pitcher fertigation on shooting response and *kusmi* lac crop performance on *ber* (*Ziziphus mauritiana*). *National Academy Science Letters* **38**(5): 379–82. DOI: 10.1007/s 40009-015- 0360-X
2. Babu KD, Singh NV, Chandra R, Sharma J, Maity A and Sarkar PC (2015). Improvement in keeping quality of pomegranate fruits during storage. *Research on Crops* **16**(2): 281–287.
3. Binsi PK, Natasha Nayak, Sarkar PC, Upali S, George N and Ravishankar CN (2015). Comparative evaluation of gum arabic coating and vacuum packaging on chilled storage characteristics of Indian mackerel (*Rastrelliger kanagartha*). *Journal of food science and technology* **53**:1889–1898. DOI: 10.1007/ s13197-015-2122-7
4. Ghosh J, Lohot VD, Singhal V, Ghosal S and Sharma KK (2014). Pigeon pea lac insect interaction: effect of lac culture on grain yield and biochemical parameters in pigeon pea. *Indian Journal of Genetics* **74**(4): 644–650.
5. Ghosh J, Lohot VD, Singhal V, Ghosal S, Sharma KK (2015). Genetic diversity in *ber* (*Ziziphus mauritiana* Lam.). *BioScan* **10**(4): 1905–1908.
6. Jaiswal AK and Singh JP (2015). Response of broodlac treatment with insecticides on predators and parasitoids of lac insect, *Kerria lacca* (Kerr) harbouring broodlac. *Indian Journal of Entomology* **77**(1): 21–26.
7. Jaiswal AK, Singh AK, Singh JP and Patamajhi P (2015). Management of pod fly,

- Melanagromyza obtusa* in a bushy lac host, *Flemingia semialata* for quality seed production. *Indian Journal of Entomology* **77**(3): 278–282.
8. Jaiswal AK and Singh JP (2016). Bio-efficacy potential of flubendiamide as an IPM tool for the management of biotic stress in lac culture. *Proceedings of the National Academy of Sciences, India, Section B: Biological Sciences* **86**: 15–20.
 9. Kumar A and Jaiswal AK (2015). Capacity building programme on scientific lac cultivation, processing, uses and their correlates. *Indian Research Journal of Extension Education* **15**(1): 60–64.
 10. Kumar A, Jaiswal AK, Patamajhi P and Yogi RK (2015). Queries and expectations of lac farmers under one to one programme: An analysis. *International Journal of Tropical Agriculture* **33**(4): 3869–3873.
 11. Kumar A, Yogi RK, Jaiswal AK and Singh AK (2015). Impact of special project on lac cultivation and processing in the Mahasamund divisional forest area of Chhattisgarh under Swarnjayanti Gram Swarozgar Yojana (SGSY). *International Journal of Tropical Agriculture* **33**(4): 3515–3519.
 12. Monobrullah Md, Mohanasundaram A, Meena SC, Verma S and Sharma KK (2015). Population dynamics and emergence profile of the key parasitoids and the common predators associated with lac insect. *Biospectra* **10**(1): 139–144.
 13. Prasad N, Sharma SC, Pandey SK and Kar AK (2015). Effect of freshening tools and freshening intervals on resin yield from *Pinus caribaea* using bore hole method of resin tapping. *Journal of Non-Timber Forest Products* **22**(1): 1–6.
 14. Remadevi OK, Siddiqui MZ, Nagaveni HC, Rao MV, Shiny KS and Ramani R (2015). Efficacy of shellac-based varnishes for protection of wood against termite, borer and fungal attack. *Journal of the Indian Academy of Wood Science* **12**(1): 9–14. DOI: 10.1007/s13196-015-0138-2
 15. Siddiqui MZ (2015). Post-harvest processing and value addition of natural gums and resins. *World Journal of Pharmaceutical Sciences* **3**(8): 1471–1472.
 16. Siddiqui MZ, Chowdhury AR and Prasad N (2015). Evaluation of phytochemicals, physico-chemical properties and antioxidant activity in gum exudates of *Buchanania lanzan*. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences* **86**: 817–822. DOI: 10.1007/s 40011-015-0539-4
 17. Siddiqui MZ, Thamilarasi K and Singh BR (2015). Physico-chemical properties and

- protein profiling of gum exudates of *Acacia nilotica* collected from different agro-climatic zones in India. *Research Journal of Chemistry and Environment* 19(4): 29–36.
18. Singh AK, Ghosal S and Jaiswal AK (2015). Effect of fortified lac mud application on growth and flower production of rose. *International Journal of Tropical Agriculture* 33(2): 1023–1025.
 19. Singh AK, Jaiswal AK, Bhattacharya A, Singh RK, Singh AK, Monobrullah Md and Ghosal S (2015). Maximization of profitability through Mac production on *Flemingia semialata*-a bushy lac host. *Vecetos* 28(2): 219–222.
 20. Singh AK, Singh JP, Yogi RK, Jaiswal AK, Sequeria D and Singh A (2015). Impact of lac cultivation on economic strengthening of tribal women. *International Journal of Tropical Agriculture* 33(2): 1027–1032.
 21. Singh BR and Siddiqui MZ (2015). Antimicrobial activity of *Commiphora wightli* gum (guggul gum) extract against Gram positive and Gram negative bacteria. *Journal of Microbiology and Antimicrobial Agents* 1(2): 36–39.
 22. Singh BR, Dubey S and Siddiqui MZ (2015). Antimicrobial activity of natural edible gums. *World Journal of Pharmaceutical Sciences* 3(11): 2217–2221.
 23. Singh JP, Jaiswal AK and Monobrullah Md (2016). First record of some insect pests on commercial lac host plant, *Ziziphus mauritiana* from India. *Proceedings of the National Academy of Sciences, India, Section B: Biological Sciences* 86: 261–268. DOI 10.1007/s40011-014-0400-1.
 24. Singh RK and Ghosal S (2014). Effect of mulch on soil moisture, temperature, weed infestation and winter season lac yield of *ber* (*Ziziphus mauritiana*) under rainfed condition. *Environment and Ecology* 33(4C): 2174–2178.
 25. Singh RK and Ghosal S (2015). Effect of mulch on soil moisture, temperature, weed infestation and *rangeeni* lac yield in *palas* (*Butea monosperma*) in Jharkhand. *BioScan* 10(3): 1233–1236.

2016-17

1. Ansari MF and Kumari N (2016). Modification of shellac with melamine and epoxy resins. *Asia Pacific Coatings Journal* 29(2): 27–30.
2. Bhat SS, Singh NB, Sankhyan HP and Sharma KR (2016). Genetic variability for growth traits of different half-sib progenies of *Pinus roxburghii* Sargent. Indian

- Journal of Ecology **43**(2): 765–769.
3. Bhat SS, Singh NB, Sankhyan HP and Sharma KR (2016). Variability studies for needle and wood traits of different half sib progenies of *Pinus roxburghii* Sargent. *Physiology and Molecular Biology of Plants* **22**(2): 231–239. DOI 10.1007/s12298-016-0358-y
 4. Binsi PK, Nayak N, Sarkar PC, Jeyakumar A, Ashraf PM, Ninan G, Ravishankar CN (2016). Structural and oxidative stabilization of spray dried fish oil microencapsulates with gum arabic and sage polyphenols: Characterization and release kinetics. *Food Chemistry* **219**: 158–168. DOI: <http://dx.doi.org/10.1016/j.foodchem.2016.09.126>.
 5. Dubey S, Sinha DK, Murugan MS, Singh PL, Siddiqui MZ, Prasad N, Prasanna VA, Bhardwaj M and Singh BR (2015). Antimicrobial activity of ethanolic and aqueous extracts of common edible gums against pathogenic bacteria of animal and human health significance. *Research & Reviews: Journal of Pharmaceutics and Nanotechnology* **3**(3): 30–36.
 6. Ghosal S, Meena SC, Ghosh J and Thamilarasi K (2016). Strategy for application of macro micronutrients and liming in acid lateritic soils of Jharkhand for sustainable growth of *Flemingia semialata*. *Indian Journal of Agricultural Sciences* **86**(2): 202–207.
 7. Ghosh J, Lohot VD, Singhal V, Ghosal S and Sharma KK (2016). Morphological-biochemical physiological traits assisted selection for kusmi lac production on ber (*Ziziphus mauritiana* Lam.) varieties. *Indian Journal of Horticulture* **73**(1): 19–24.
 8. Jaiswal AK, Singh JP and Patamajhi P (2016). Toxicity of some novel insecticides against *Aprostocetus purpureus*, parasitoid of lac insect *Kerria lacca* (Kerr). *Indian Journal of Entomology* **78**(4): 356–360.
 9. Kumar A, Jaiswal AK, Singh AK and Yogi RK (2015). Knowledge up-gradation of extension functionaries on non timber forest produces *i.e.* lac via Model Training Course. *Journal of Community Mobilization and Sustainable Development* **10**(2): 199–205.
 10. Mohanasundaram A, Monobrullah Md, Sharma KK, Meena SC, Verma S and Ramani R (2016). *Aprostocetus purpureus*, a major parasitoid of Indian lac insect, *Kerria lacca* (Coccoidea: Tachardiidae). *Indian Journal of Ecology* **43**(Special issue-1): 517–521.

11. Monobrullah Md, Mohanasundaram A, Meena SC, Verma S and Sharma KK (2016). Host and location mediated variation in life cycle and biological attributes of Indian lac insect, *Kerria lacca* (Kerr). *Indian Journal of Ecology* **43**(Special issue-1): 169–172.
12. Sarkar PC, Sahu U, Binsi PK and Nayak N (2016). Effect of vegetables gums on proximate, functional, optical and sensory attributes of Catfish nuggets during chilled storage, *Asian Journal of Dairy and Food Research* **35**(2): 130–136.
13. Sharma SC, Prasad N, Pandey SK and Giri SK (2016). A review on status of gum tapping and scope for improvement. *Agricultural Mechanization in Asia, Africa and Latin America* **47**(3): 68–75.
14. Siddiqui MZ (2016). Diverse applications of oleo resins. *World Journal of Pharmaceutical Sciences* **4**(10): 1–3.
15. Siddiqui MZ, Chowdhury AR, Thamilarasi K, Prasad N and Singh BR (2016). Amino acid profiling, viscosity and antibacterial activity of acacia gums from different locations in India. *World Journal of Pharmaceutical Sciences* **4**(11): 165–171.
16. Singh AK, Ghosal S and Jaiswal AK (2016). Effect of lac mud on fresh leaf yield of spinach. *Agrica* **5**(2): 148–151.
17. Singh JP, Jaiswal AK and Monobrullah Md (2016). First record of some pest insect on commercial lac host plant, *Ziziphus mauritiana* from India. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences* **86**: 261–268.

2017-18

1. Ali Md, Nair KK, Kumar R, Gopal M, Srivastava C and Siddiqui WA (2017). Development and evaluation of chitosan-sodium alginate based etofenprox as nanopesticide. *Advanced Science, Engineering and Medicine* **9**: 1–7.
2. Ansari MF and Sarkhel G (2017). Improving coating properties of shellac-epoxidised-novolac blends with melamine formaldehyde resin. *Pigment & Resin Technol* **46**(2): 92–99.
3. Gani M, Gupta RK, Zargar SM, Kour G, Monobrullah Md, Kandasamy T and Mohanasundaram A (2017). Molecular identification and phylogenetic analyses of multiple nucleopolyhedrovirus isolated from *Lymantria obfusate* (Lepidoptera: Lymantriidae) in India. *Applied Entomology and Zoology* **52**: 389–399. DOI: 10.1007/s13355-017-0490-3

4. Ghosal S (2017). Effect of shoot age, liming and potassium application for summer season lac cultivation on *Butea monosperma* trees. *Indian Forester* **143**(3): 245–248.
5. Ghosal S, Meena SC, Lohot VD and Thamilarasi K (2017). Effect of macro-micro nutrients and liming on winter season kusmi lac yield on *Flemingia semialata*. *Indian Forester* **143**: 676–679.
6. Ghosh J, Lohot VD, Ghosal S, Singhal V and Sinha NK (2017). Drought resilient *Flemingia semialata* Roxb. for improving lac productivity in drought prone ecologies. *Indian Journal of Genetics* **77**(1): 153–159.
7. Hazarika LK, Das P, Mohanasundaram A, Saikia R and Islam AN (2017). A comprehensive study on pest complex of *Flemingia* spp. from Jorhat, Assam. *Journal of Entomology and Zoology Studies* **5**(4): 506–511.
8. Jeet P, Singh DK, Sarangi A, Singh SD, Iquebal MA and Kumar R (2017). Modeling, probability analysis and forecasting of rainfall in Betwa river basin in Bundelkhand region, India. *International Journal of Agriculture Innovations and Research* **6**(2): 312–319.
9. Kumawat RN, Santra, P and Sinha NK (2017). Effect of different cultural practices and fertilization on the regeneration of degraded *Lasiurus indicus* grassland in extreme arid conditions of Jaisalmer, India. *Annals Arid Zone* **56**(3 & 4): 89–95.
10. Mohanasundaram A, Monobrullah Md, Sharma KK, Anees K, Singh RK, Meena SC and Verma S (2017). Climate change: Effect of weather parameters on production of summer season crop of *rangeeni* strain of Indian lac insect, *Kerria lacca* (Kerr) at Ranchi, Jharkhand. *Journal of Agrometeorology* **16** (Special Issue-I): 108–113.
11. Pandey SK, Prasad N, Sharma SC and Srivastava S (2017). Effects of packaging and storage on keeping quality of bleached lac. *Journal of Agri Search* **4**(4): 264–269.
12. Raja P, Singh N, Srinivas CV, Singhal M, Chouhan P, Singh M and Sinha NK (2017). Analyzing energy–water exchange dynamics in the Thar desert. *Climate Dynamics* **50**: 3281–3300.
13. Shamim G, Ranjan SK, Pandey DM, Sharma KK and Ramani R (2017). Lac dye as a potential antineoplastic agent. *Journal of Cancer Research and Therapeutics* **12**(2): 1003–1035.
14. Shamim G, Ranjan SK, Thamilarasi K, Sharma KK and Ramani R (2017). Bacterial flora associated with *Kerria lacca* (Kerr). *Indian Journal of Entomology* **79**(1): 41–

48. DOI: 10.5958/0974-8172.2017.00010.4
15. Siddiqui MZ, Prasad N and Tewari JC (2017). Physico-chemical properties and toxicity test of *Prosopis juliflora* and *Balanites aegyptiaca* gum exudates from Rajasthan. *Indian Journal of Experimental Biology* **55**: 782–788.
 16. Sinha NK, Bhadana VP, Meena SR and Giri SP (2017). Seed dormancy, its alleviation and importance in agriculture. *Journal of Pharmacognosy & Phytochem* **SP1**: 333–334.
 17. Srivastava S and Thombare N (2017). Safety assessment of shellac as food additive through long term toxicity study. *Trends in Biosciences* **10**(2): 733–740.
 18. Srivastava S, Chowdhury AR and Maurya S (2017). Antimicrobial efficacy of methylated lac dye, an anthraquinone derivative. *Indian Journal of Microbiology* **57**(4): 470–476.
 19. Srivastava S, Chowdhury AR, Thombare N (2017). Quality requirement and standards for natural resins and gums. *International Journal of Bioresource Science* **3**(2): 89–94.
 20. Tewari JC, Pareek K, Shiran K and Prasad N (2017). On exudation of gum arabic through advance technology. *International Journal of Environmental Sciences & Natural Resources* **2**(5): 1–7.
 21. Thombare N, Jha U, Mishra S and Siddiqui MZ (2017). Borax cross-linked guar gum hydrogels as potential adsorbents for water purification. *Carbohydrate Polymers* **168**: 274–281.
 22. Thombare N, Mishra S, Siddiqui MZ, Jha U, Singh D and Mahajan GR (2018). Design and development of guar gum based novel, superabsorbent and moisture retaining hydrogels for agricultural applications. *Carbohydrate Polymers* **185**: 169–178.
 23. Thombare N, Srivastava S and Prasad M (2017). Chronic toxicity assessment of lac dye as potential food colorant. *Trends in Biosciences* **10**(2): 741–748.
 24. Tribhuvan KU, Pawar DV, Lohot VD, Alam S, Singh BK, Bhat SB, Sharma KK and Thamilarasi K (2017). Isolation and characterization of root nodule bacteria from *Flemingia* spp. for plant growth enhancement. *Multilogic in Science* **7**(XXIII): 274–278.
 25. Yogi RK, Jaiswal AK and Sharma KK (2017). Enabling rural households of

Chotanagpur plateau region of Jharkhand for doubling farm income. *Jharkhand Journal of Development and Management Studies* **15**(1): 7179–1795.

2018-19

1. Ansari MF and Sarkar PC (2018). Modification of gummy mass with biomine resin: An industrial waste to a source of income. *Multilogic in Science* **8** (B): 293–297.
2. Bhavana P, Singh AK, Kumar R, Prajapati GK, Thamilarasi K, Manickam R, Maurya S and Choudhary JS (2018). Identification of resistance in tomato against root knot nematode (*Meloidogyne incognita*) and comparison of molecular markers for Mi gene. *Australasian Plant Pathology* **48**: 93–100.
3. Chowdhury AR, Siddiqui MZ and Prasad N (2018). Thermal behaviour of *Buchanania lanzan* gums collected from different places. *International Journal of Bioresource Science* **5**(2): 117–121.
4. Ghosal S, Lohot VD, Bhat SS and Sinha NK (2018). Kusum (*Schleichera oleosa* (Lour.) Oken) seed germination and seedling growth as affected by integrated nutrient management under acid soil of Jharkhand. *Multilogic in Science* **8**(B): 336–39.
5. Ghosal S, Sharma KK, Singh AK and Singh BP (2018). Recent advances in lac production technologies. *Journal of Pharmacognosy and Phytochemistry* **1**: 1598–1600.
6. Ghosh J, Jyoti A, Lohot VD, Sinha NK, Ghosal S, Thamilarasi K, Thakur VV (2018). Consequence of lac cultivation on pigeonpea (*Cajanus cajan*) seeds and seedling establishment. *Multilogic in Science* **8**(C): 268–271.
7. Ghosh J, Lohot VD, Ghosal S, Singhal V and Thamilarasi K (2018). Pruning for tree vigour and lac productivity of palas variant swadi (*Butea monosperma*) in Chhotanagpur plateau of Jharkhand. *Journal of Pharmacognosy and Phytochemistry* **1**: 1714–1717.
8. Kandasamy T, Mishra V, Toppo N, Ranjan S, Mohanasundaram A, Sharma KK and Ramani R (2018). Genetic association of geographic populations and species of lac insects of the genus *Kerria* (Hemiptera: Coccoidea) with EST microsatellite markers. *Research Journal of Biotechnology* **13**(9): 77–89.
9. Kaushik S, Sharma KK, Ramani R and Lakhanpaul S (2018). Detection of *Wolbachia* Phage (WO) in Indian lac insect [*Kerria lacca* (Kerr.)] and its implications. *Indian Journal of Microbiology*, **59**(2): 237–240.

10. Kumar Y, Ghosh J, Mishra RK and Chaturvedi SK (2017). Evaluation of chickpea (*Cicer arietinum* L.) germplasm in Jharkhand. *Journal of Food Legumes* **30**(3): 11–13.
11. Kumar Y, Ghosh J, Mishra RK and Chaturvedi SK (2017). Performance stability of promising chickpea (*Cicer arietinum* L.) cultivars in Jharkhand. *Journal of Food Legumes* **30**(4): 251–255.
12. Lohot VD and Ghosh J (2018). Biochemical response of *Flemingia semialata* (Roxb.) to sap sucking lac insect *Kerria lacca* Kerr. *Indian Journal of Entomology* **80**(4): 1672–1677.
13. Lohot VD, Ghosh J, Ghosal S, Thamilarasi K, Gunjan and Sharma KK (2018). Effect of lac culture on seed quality traits of pigeonpea [*Cajanus cajan* (L.) Mill sp.]. *Journal of Entomology and Zoology Studies* **6**(2): 2293–2298.
14. Lohot VD, Ghosh J, Thakur VV, Sinha NK, Thamilarasi K, Mohanasundaram A and Ghosal S (2018). Studies on effects of plant growth regulators on physiology of lac insect (*Kerria lacca* Kerr) infested *Flemingia semialata* (Roxb.). *Multilogic in Science* **8**(B): 256–260.
15. Mandal MP, Mamta K, Mandal SS, Mandal SK and Sinha NK (2018). Allelopathic effect of aqueous leaf extracts of *Withania somnifera* dual on germination and seedling growth of wheat. *Journal of Pharmacognosy and Phytochemistry* **7**(1S): 3158–3161.
16. Mohanasundaram A, Meena SC, Monobrullah Md, Sharma KK, Anees K and Verma S (2018). Variations in population of lac associated fauna in relation to different lac host plants, lac insect strains and seasons of cultivation. *Journal of Entomology and Zoology Studies* **6**(2): 490–495.
17. Mohanasundaram A, Ramani R, Sharma KK and Thamilarasi K (2018). Reproductive isolation in lac insects- *Kerria lacca* and *Kerria chinensis*. *Indian Journal of Entomology* **80**(4): 1327–1330.
18. Mohanasundaram A, Sharma KK, Lohot VD, Thamilarasi K, Ghosh J, Ramani R, Shamim G, Choudhury N and Eqbal S (2018). Occurrence of lac insects and their host plants in Tamil Nadu and Kerala. *Indian Journal of Entomology* **80**(4): 1351–1358.
19. Pandey SK, Yadav SKS, Prasad N and Sharma SC (2018). Chouri-parta method of

- estimating seedlac yield. *Journal of AgriSearch* **5**(4): 260–264.
20. Priya H, Chanchala K, Kumar N, Singh R and Dhar DW (2018). Influence of low pH stress on growth, specific biochemical parameters and antioxidants amongst selected *Nostoc* strains. *International Journal of Current Microbiology and Applied Sciences* **7**(07): 3055–3064.
 21. Raja P, Singh N, Srinivas CV, Singhal M, Chouhan P, Singh M and Sinha NK (2018). Analyzing energy– water exchange dynamics in the Thar desert. *Climate Dynamics* **50**: 3281–3300.
 22. Rajgopal NN and Meshram NM (2018). Second species of unusual leafhopper genus *Univagriss* (Hemiptera: Cicadellidae: Deltocephalinae) from India. *Zootaxa* **4514**(3): 425–430.
 23. Rajgopal NN, Stuti, Meshram NM and Shashank PR (2018). DNA barcoding and description of new species of *Paradorydium* Kirkaldy (Cicadellidae: Deltocephalinae: Eupelicini) from India. *Journal of Asia-Pacific Entomology* **21**: 1059–1063.
 24. Shamim G, Pandey DM, Sharma KK and Ramani R (2017). Anti-feedant effect of water-soluble anthraquinone pigment of *Kerria lacca*. *Journal of Biosciences* **25**: 77–81.
 25. Sharma SC, Prasad N, Pandey SK and Giri SK (2018). Status of resin tapping and scope of improvement - A review. *Agricultural Mechanization in Asia, Africa and Latin America*, **49**(3): 16–26.
 26. Sharma SC, Prasad N, Pandey SK and Kar AK (2018). Studies on engineering properties of selected natural exudate gums. *Journal of Agricultural Engineering* **55**(1): 54–63.
 27. Sharma SC, Prasad N, Pandey SK and Singh R (2018). Mechanization status in commercially important NRGs production - A Review. *Multilogic in Science* **8**(E): 353–357.
 28. Sharma SC, Singh MP, Singh Jayant and Rastogi SK (2018). Effect of work conditions on oxygen uptake and energy cost of test draught he-buffalo during tread mill exercise under controlled environment. *Journal of AgriSearch* **5**(3): 203–210.
 29. Siddiqui MZ, Chowdhury AR, Ali Md and Prasad N (2018). Plant exudate gum induced silver nanoparticles-Future potentials. *Multilogic in Science* **8**(C): 148–150.
 30. Singh AK, Ghosal S, Sinha NK and Kumar N (2018). Utilization of lac factory waste

- for integrated nutrient management in brinjal and its effect on soil fertility. *Multilogic in Science* **8**(E): 246–248.
31. Singh AK, Jaiswal AK, Monobrullah Md, Sinha NK and Raizada A (2018). Conserving broodlac on *Flemingia semialata* in *Albizia procera* (siris) plantation during summer season under rainfed condition. *Journal of Pharmacognosy and Phytochemistry* **7**(1S): 1157–1159.
 32. Singh AK, Sinha P, Singh CS, Singh SK, Singh AK and Sinha NK (2018.) Effect of establishment methods on yield and economics of dry direct seeded rice (*Oryza sativa* L). *Journal of Pharmacognosy and Phytochemistry* **7**(1S): 1169–1172.
 33. Singh R, Pradhan RC, Thakur A, Kumar S, Pandey SK, Sharma SC and Prasad N (2018). Studies on flow properties of gum arabic powder. *Multilogic in Science* **8**(C): 286–288.
 34. Sinha NK, Ghosh J, Lohot VD and Ghosal S (2018). Morpho-physiological study of lac insect host plants kusum (*Schleichera oleosa*). *Multilogic in Science* **8**(B): 365–366.
 35. Sinha NK, Ghosh J, Lohot VD, Monobrullah Md, Ghosal S, Sharma KK, Singh AK and Brajendra (2018). Effect of some plant growth regulators on growth, seed setting, seed shattering and seed yield in lac insect host plant *Flemingia semialata* Roxb. *Journal of Pharmacognosy and Phytochemistry* **7**(1S): 2290–2292.
 36. Sinha NK, Santra P and Raja P (2018). Prospects and study of soil seed bank in India. *Journal of Pharmacognosy and Phytochemistry* **7**(1S): 1878–1882.
 37. Srivastava S, Chowdhury AR and Sharma SC (2018). Control of deacetylation in gum karaya on storage for quality retention. *International Journal of Bioresource Science* **5**(2): 95–99.
 38. Srivastava S, Yadav SKS, Chowdhury AR, Thombare N and Mazumder PM (2018). Evaluation of wound healing properties of tannin isolated from *Butea* gum. *Multilogic in Science* **8**(A): 368–369.
 39. Srivastava SK and Jeet P (2018). Effect of drip irrigation and plastic mulch on growth and seed yield of *Flemingia semialata*. *Multilogic in Science* **8**(B): 397–398.
 40. Thakur A, Siddiqui MZ, Singh R and Prasad N (2018). Comparative study of physiochemical properties of chironji (*Buchanania lanzan*) gum and bahera (*Terminalia bellerica*) gum. *Multilogic in Science* **8**(C): 138–140.

41. Thamilarasi K, Sajiya E, Monika G, Kanchan K, Vaibhav DL, Mohanasundaram A and Sharma KK (2018). Plant host induced variation of endosymbionts associated with *Kusmi* lac insects. *Multilogic in Science* **8**(C): 99–102.
42. Thombare N, Mate CJ, Thamilarasi K, Chowdhury AR and Srivastava S (2018). Physico-chemical characterization and microbiological evaluation of gum ghatti as potential food additive. *Multilogic in Science* **8**(E): 316–319.
43. Thombare N, Mishra S, Siddiqui MZ, Jha U, Singh DD and Mahajan GR (2018). Design and development of guar gum based novel, superabsorbent and moisture retaining hydrogels for agricultural applications. *Carbohydrate Polymers* **185**: 169–178.
44. Yogi RK, Kumar Alok, Singh AK and Kumar Nirmal (2018). Marketing efficiency of various channels for disposal of natural resins in tribal areas: A case study of central and north eastern plateau zones of India. *Jharkhand Journal of Development And Management Studies* **15**(4): 7475–7492.
45. Yogi RK, Singh AK, Kumar Nirmal and Sharma KK (2018). Assessing minimum support price for non-wood forest products (NWFPs): A priority based policy intervention in India. *Multilogic in Science* **8**(C): 261–267.

2019-20

1. Chowdhury AR and Gupta RL (2019). Synthesis and fungi-toxicity evaluation of Schiff bases of 4-amino3-mercapto-5-phenyl-1,2,4-triazole. *International Journal of Chemical Studies* **7**(6): 3–8.
2. Ghosal S and Meena SC (2019). Factors affecting lac insect settlement. *Indian Forester* **145**(12): 1212–13.
3. Kandasamy T, Roy T, Mohanasundaram A, Sharma KK and Ramani R (2019). 18S rDNA based detection of hymenopteran parasitoids in the Indian lac insect, *Kerria lacca* (Kerr). *Indian Journal of Experimental Biology* **57**: 526–531.
4. Kumari K, Thamilarasi K, Ghosh J, Lohot VD and Ghosal S (2019). Molecular diversity analysis of pigeonpea genotypes for scar marker development. *International Journal of Chemical Studies* **SP6**: 534–540.
5. Lohot VD, Ghosh J, Thamilarasi K, Mohanasundaram A, Sinha NK, Gunjan, Thakur VV, Neha K, Kumari S, Jha S, Xess M and Sharma KK (2019). Explicating the impact of phloem sap sucking lac insect (*Kerria lacca* Kerr) on phytochemistry of

- Kusum (Schleichera oleosa Oken.)* host. *International Journal of Chemical Studies* **SP6**: 142–147.
6. Meena SC, Sharma KK, Rana BS, Swami H, Lekha and Thamilarasi K (2019). Study of productivity linked parameters of lac insect, *Kerria lacca* (Kerr) on *Flemingia macrophylla*. *Journal of Entomology and Zoology Studies* **7**(3): 505–509.
 7. Singh R and Ananda KS (2019). Effect of ozone fumigation on controlling drugstore beetle and quality of coriander during storage. *International Journal of Chemical Studies* **7**(6): 698–702.
 8. Sinha NK, Singh H and Sharma KK (2019). A new record of three seeded *Kusum (Schleichera oleosa Lour.)* Merr. fruits from Jharkhand, India. *International Journal of Chemical Studies* **SP6**: 01–02.
 9. Yadav VK, Kumar N, Singh AK, Chakrabarti A, Bhadana VP and Sarkar PK(2019). Knowledge level of farmers and scientists about agricultural biotechnology in Jharkhand, India. *International Journal of Chemical Studies* **SP6**: 703–706.

2020-21

1. Ghosal S and Rajgopal NN (2020). Effect of tree size, topography and shoot age on pest infestation and tree growth of *palas (Butea monosperma)*. *Indian Forester* **146**(5): 450–452.
2. Kumar N, Yogi RK and Yadav SKS (2020). Knowledge and adoption level of scientific lac cultivation at farmer's field: A case from eastern India. *Indian Journal of Extension Education* **56**(2): 88–92.
3. Lohot VD, Ghosh J, Thamilarasi K, Mohansundaram A, Sharma KK (2020). *Swadi palas* (IC0629501; INGR 19031, a flame of forest (*Butea monosperma*) with trifoliate leaflet and acute apex, larger flower with dull orange colour with early biological maturity. *Indian Journal of Plant Genetic Resources* **33**: 270–271.
4. Mate CJ and Mishra S (2020). Exploring the potential of moi gum for diverse applications: A Review. *Journal of Polymers and the Environment* **28**:1579–1591.
5. Mate CJ and Mishra S (2020). Synthesis of borax cross-linked jhingan gum hydrogel for remediation of Remazol Brilliant Blue R (RBBR) dye from water: Adsorption isotherm, kinetic, thermodynamic and biodegradation studies. *International Journal of Biological Macromolecules* **151**: 677–690.
6. Mate CJ, Mishra S and Srivastava PK (2020). Design of low-cost Jhingan gum based

- flocculant for remediation of wastewater: flocculation and biodegradation studies. *International Journal of Environmental Science and Technology* **17**: 2545–2562.
7. Mate CJ, Mishra S and Srivastava PK (2020). Design of pH sensitive low cost adsorbent from the exudate of *Lannea coromandelica* (Houtt) for remediation of Malachite Green dye from aqueous Solution. *Polymer Bulletin* **78**: 3459–3487. DOI: <https://doi.org/10.1007/s00289-020-03263-8>.
 8. Mate CJ, Mishra S and Srivastava PK (2020). In vitro release kinetics of graft matrices from *Lannea coromandelica* (Houtt) gum for treatment of colonic diseases by 5-ASA. *International Journal of Biological Macromolecules* **149**: 908–920.
 9. Meena SC, Sharma KK, Swami H, Rana BS, Lekha and Lohot VD (2020). Survey record of lac insect *Kerria lacca* and its host plants in western plains of India. *The Indian Journal of Agricultural Sciences* **90**(1): 220–225.
 10. Saha A, Salim SM, Sudheesan D, Suresh VR, Nag SK, Panikkar P, Paul TT, Palaniswamy R, Das BK and Chowdhury AR (2020). Geochemistry, mineralogy and nutrient concentrations of sediment of river Pampa in India during a massive flood event. *Arabian Journal of Geosciences* **13**: 1–18. DOI: 10.1007/s12517-020-06053-8
 11. Sakare P, Bharimalla AK, Dhakane-Lad J and Patil PG (2020). Development of greaseproof paper from banana pseudostem fiber for packaging of butter. *Journal of Natural Fibers* **18**(12): 1974–1982. DOI: 10.1080/15440478.2019.1710652
 12. Sakare P, Jadhav ML and John H (2020). Study on physical properties of soaked soybean and functional properties of germinated soy flour. *Journal of the Institution of Engineers (India): Series A* **101**(4): 787–794.
 13. Sakare P, Prasad N, Thombare N, Singh R and Sharma SC (2020). Infrared drying of food materials: Recent advances. *Food Engineering Reviews* **12**(3): 381–398.
 14. Sharma SC, Prasad N, Pandey SK and Bhargava VK (2020). Development of integrated small scale lac processing unit. *Agricultural Mechanization in Asia, Africa and Latin America* **51**(2): 58–66.
 15. Srivastava SK and Pawan Jeet (2020). Effects of irrigation methods and mulching on growth and seed yield of semialata. *Journal of AgriSearch* **7**(1): 18–20.
 16. Thamilarasi K, Kumari K, Ghosh J, Tribhuvan KU, Lohot VD, Gargi M and Ghosal S (2020). EST-SSRs reveal genetic distinction between lac and grain yielding genotypes of pigeonpea. *Journal of Plant Biochemistry and Biotechnology* **29**: 461–

2021-22

1. Bakade R, Ingole KD, Deshpande S, Pal G, Patil SS, Bhattacharjee S, Prasannakumar MK and Ramu VS (2021). Comparative transcriptome analysis of rice resistant and susceptible genotypes to *Xanthomonas oryzae* pv. *oryzae* identifies novel genes to control bacterial leaf blight. *Molecular Biotechnology* **63**(8): 719–731.
2. Bhatia R, Dey SS, Sharma K, Singh S, Kumar S, Pramanik A, Parkash C and Kumar R (2021). Back-cross introgression of ‘Tour’ cytoplasm from *Brassica napus* through in vitro embryo rescue reveals partial restoration of sterility in *B. oleracea*. *Scientia Horticulturae* **282**: 110014.
3. Bhatia R, Sharma K, Parkash C, Pramanik A, Singh D, Singh S, Kumar R and Dey SS (2021). Microspore derived population developed from an inter-specific hybrid (*Brassica oleracea* × *B. carinata*) through a modified protocol provides insight into B genome derived black rot resistance and inter-genomic interaction. *Plant Cell, Tissue and Organ Culture (PCTOC)* **145**(2): 417–434.
4. Chowdhury AR, Siddiqui MZ, Maurya S, Mate CJ and Ali M (2021). Synthesis, characterization and inhibition effects of Jhingan gum-induced silver nanoparticles against powdery mildew of pea. *Indian Phytopathology* **75**(1): 109–116.
5. Ghosal S and Bhat SS (2021). Effect of PGPR and VAM fungi on seed germination and seedling growth enhancement of kusum (*Schleichera oleosa*), *Indian Forester* **147**(2): 195–199.
6. Khatri K, Warkar SG and Thombare N (2021). Controlled release and release kinetics studies of boron through the functional formulation of carboxymethyl tamarind kernel gum-based superabsorbent hydrogel. *Polymer Bulletin* **79**(4): 2287–303.
7. Khatri K, Warkar SG and Thombare N (2021). Zinc micronutrient-loaded carboxymethyl tamarind kernel gum-based superabsorbent hydrogels: controlled release and kinetics studies for agricultural applications. *Colloid and Polymer Science* **299**(7): 1103–1011.
8. Langlentombi LC and Kumar M (2021). A prediction of suitable habitat mapping of *Pinus roxburghii* Sarg. using maxent modeling. *Environment Conservation Journal* **22**(3): 149–153.
9. Langlentombi LC and Kumar M (2021). Inherent vulnerability of forests: a case study

- from Jharkhand in India. *Journal of Tropical Forest Science* **33**(4): 455–460.
10. Langlentombi LC, Rajgopal NN and Ghosal S (2021). Effect of shoot number, diameter and lac encrustation thickness on *kusmi* broodlac yield of *Kerria lacca* from *Flemingia semialata*. *Indian Journal of Entomology* **84**(1): 115–118.
 11. Laxmivandana R, Chhaya P, Sharma TR, Sharma KK and Naskar S (2021). Differential proteins associated with plasma membrane in X-and/or Y-chromosome bearing spermatozoa in indicus cattle. *Reproduction in Domestic Animals* **56**: 928–935.
 12. Mohanasundaram A, Sharma KK, Sweta V, Anees K and Rashmi M (2021). Broodlac quality assessment and forecasting of crawler emergence in Indian lac insect *Kerria lacca*. *Indian Journal of Entomology* **84**(1): 24–28.
 13. Naik S, Shashank PR, Rajgopal NN and Meshram NM (2021). Linnean shortfall still a major concern in India: as evident by the micromoth family Tortricidae (Lepidoptera). *Current Science* **120**(4): 712–715.
 14. Rajgopal NN, Mohanasundaram A and Sharma KK (2021). A new species of lac insect in the genus **Kerria** Targioni Tozzetti (Hemiptera: Coccoomorpha: Tachardiidae) on *Samanea saman* (Fabaceae) from India. *Zootaxa* **4938**(1): 60–68.
 15. Rajput J, Choudhary R, Kothari M, Al-Ansari N, Dimple D, Makadiya K, Singh PK, Kushwaha NL, Paramguru PK, Rai A and Rana L (2021). Diagnostic and socio-economic analysis of Bhimsagar irrigation scheme: Diagnostic and socio-economic analysis of Bhimsagar irrigation scheme. *Ecology, Environment and Conservation* **27**: 320–330.
 16. Sarkar B, Mohanty A, Gupta SK, Choudhury AR, Daware A and Bhattacharjee S (2021). Nanotechnology: A next-generation tool for sustainable aquaculture. *Aquaculture* **546**: 737330.
 17. Sasi M, Kumar S, Kumar M, Thapa S, Prajapati U, Tak Y, Changan S, Saurabh V, Kumari S, Kumar A et al. (2021). Garlic (*Allium sativum* L.) bioactives and its role in alleviating oral pathologies. *Antioxidants* **10**: 1847.
 18. Saxena K, Choudhary AK, Dalvi VA, Saxena RK, Ghosh J, Singh S, Verma P, Kumar S (2021). Pigeonpea is significantly more than just a delicious pulse, *Journal of Agri Search* **8**(3): 177–187.

1. Ali M, Hazra DK, Kumar YB and Karmakar R (2022). Improved extraction and recrystallization of high-quality aleuritic acid from natural resins using a modified technique. *Separation Science and Technology* **57**(18): 2916–2922.
2. Ali M, Kumar YB and Mandal T (2022). A quick, easy, cheap, effective, rugged and safe method for analysis of nano etofenprox in tomato fruit. *Scientist* **1**(3): 3569–3575.
3. Bhatnagar P, Lodhi B, Bhalavi R, Prajapati S and Sharma KK (2022). Record of lac insect occurrence in Maharashtra. *Journal of Entomology and Zoology Studies* **10**(1): 193–200.
4. Das P, Borah B, Saikia P, Hazarika LK, Sharma KK, Mohanasundaram A, Boro RC, Kalita R and Gautom T (2022). Molecular characterization of an *Isaria fumosorosea* (Wize) native strain and its pathogenicity on *Eublemma amabilis* (Lepidoptera: Noctuidae). *Egyptian Journal of Biological Pest Control* **32**(1): 1–13.
5. Ghosal S (2022). Effect of sources of kusum (*Schleichera oleosa* (Lour) Oken) seed, its size and tree attributes on seed quality and seed germination. *Journal of Agriculture and Ecology* **14**: 153–157.
6. Ghosal S and Ram MK (2022). Innovative and cost effective method of lac (*Kerria lacca*) inoculation. *Journal of Tropical Forestry* **38**(1 & 2): 55–58.
7. Jadhav MM, Adamski D, Shashank P, Rajgopal NN, Meshram NM, Mohanasundaram A, and Singh J (2022). *Syncola crypsimorpha* (Meyrick, 1922) (Gelechioidea: Blastobasidae): A new pest species associated with cultured lac in India. *Zootaxa* **5155**(4): 539–548.
8. Joshi S, Gupta A, Rajgopal NN, and Venkatesan T (2022). Taxonomic notes on the genus *Cyphococcus* Laing (Hemiptera: Coccoomorpha: Coccidae), with description of a new species from India. *Zootaxa* **5104**(4): 531–544.
9. Kale S, Kannaujia P, Nath P, Indore N and Dukare A (2023). Low-cost inorganic phase change material improves the storage conditions of on- farm storage chamber. *Journal of Food Process Engineering*, **e14395**. DOI: <https://doi.org/10.1111/jfpe.14395>
10. Kannaujia PK, Patel N, Kale S, Nath P, Mahawar M, Jalgaonkar K, Dukare A and Meena VS (2022). Variation in Physical and Biochemical Properties of Cherry Tomato cv. Nagmoti Grown under Different Growing Conditions. *Agricultural*

Science Digest. DOI: 10.18805/ag.D-5563

11. Kumar A, Pasala SP, Yogi RK, Kumar S, Meena PC, Kumar R and Singh RK (2022). Value chain analysis of *Jatropha* in Tribal belt of Rajasthan. *The Pharma Innovation Journal* **11**(6): 1086–1089.
12. Kumari S, Gupta OP, Kumar S, Sasi M, Arpitha SR, Amirtham D, Mishra CB, Thimmegowda V, Krishnan V, Sachdev A, Kumar RR and Dahuja A (2022). A novel continuous enzyme coupled colorimetric assay for phospholipase A2 and its application in the determination of catalytic activity of oil-body-associated oleosin protein. *Food Analytical Methods* **15**(8): 2155–2162.
13. Mohanasundaram A, Sharma KK, Lohot VD, Kandasamy T, Shree U and Zeeshan N (2022). *Calliandra calothyrsus*: A potential host for the Indian lac insect cultivation in India *Kerria lacca* (Kerr). *Indian Journal of Ecology* **49**(1): 201–206.
14. Muthukumar S, Sajeew TV, Aswathy K, Joseph A, Mohanasundaram A, Sharma KK and Sajily VS (2022). Management of whitefly, *Bemisia tabaci* (Gennadius) in Bushy lac host, *Flemingia semialata* at Thrissur, Kerala. *International Journal of Zoology and Applied Biosciences* **7**(6): 34–38.
15. Nath P, Kale S, Vishwakarma RK and Kaur C (2023). Innovative freeze-thaw step prior to osmotic dehydration produces softer aonla candies. *Journal of Food Measurement and Characterization* **17**(3): 2454–2463.
16. Pal G, Bakade R, Deshpande S, Sureshkumar V, Patil SS, Dawane A, Agarwal S, Niranjani V, PrasannaKumar MK and Vemanna RS (2022). Transcriptomic responses under combined bacterial blight and drought stress in rice reveal potential genes to improve multi-stress tolerance. *BMC Plant Biology* **22**(1): 349.
17. Paramaguru PK, Mali SS and Shirsath PB (2022). Impact of gridded weather data sources and its temporal resolution on crop evapotranspiration and effective rainfall of major crops in eastern region of India. *Journal of Agricultural Engineering* **59**(2): 179–192.
18. Prasad N, Thombare N, Sharma SC and Kumar S (2022). Gum Arabic – A versatile gum: A review on production, processing, properties and applications. *Industrial Crops and Products* **187**: 115304.
19. Prasad N, Thombare N, Sharma SC and Kumar S (2022). Production, processing, properties and applications of karaya (*Sterculia species*) gum. *Industrial Crops and*

- Products* **177**: 114467.
20. Prasad N, Thombare N, Sharma SC and Kumar S (2022). Recent development in the medical and industrial applications of gum karaya: A review. *Polymer Bulletin* **80**(4): 3425–3447.
 21. Rajgopal NN, Meshram NM, and Dey D (2022). A new species and some new records of leafhopper tribe *Scaphoideini* (Hemiptera: Cicadellidae: Deltocephalinae) from India. *Zootaxa* **5182**(4): 348–360.
 22. Rajput J, Kothari M, Bhakar SR, Dimple, Kushwaha NL, Singh PK, Paramaguru PK, Rai A, Elbeltagi A and Rana L (2022). Evaluation of water delivery performance of right main canal of Bhimsagar medium irrigation scheme, Rajasthan. *ISH Journal of Hydraulic Engineering* **29**(3): 378–388.
 23. Saha A, Vijaykumar ME, Das BK, Samanta S, Khan MF, Kayal T, Jana C and Chowdhury AR (2023). Geochemical distribution and forms of phosphorus in the surface sediment of Netravathi-Gurupurestuary, southwestern coast of India. *Marine Pollution Bulletin* **187**: 114543.
 24. Sarkar B, Mahanty A, Gupta SK, Chowdhury AR, Daware A and Bhattacharjee S (2022). Nanotechnology: A next-generation tool for sustainable aquaculture. *Aquaculture* **546**: 737330.
 25. Sasi M, Kumar S, Hasan M, Garcia-Gutierrez E, Kumari S, Prakash O, Nain L, Sachdev A and Dahuja A (2022). Current trends in the development of soy-based foods containing probiotics and paving the path for soy- synbiotics: Critical Reviews. *Food Science and Nutrition* **2022**: 1–19.
 26. Sharma KK (2022). Advances in lac insect culture research and scope for innovative entrepreneurship using natural resins and gums. *Indian Journal of Entomology* **84**: 40-51.
 27. Sharma SC, Pandey SK and Prasad N (2022). Equipments for Manufacturing Lac Based Value Added Products. *Journal of Agri Search* **9**(3): 249–254.
 28. Shashank PR, Naveena NL, Rajgopal NN, Elliott TA, Sreedevi K, Sunil S and Meshram NM (2022). DNA barcoding of insects from India: Current status and future perspectives. *Molecular Biology Reports* **49**(11): 10617–10626.
 29. Shinde R, Shahi DK, Mahapatra P, Naik SK, Thombare N and Singh AK (2022). Potential of lignocellulose degrading microorganisms for agricultural residue

- decomposition in soil: A review. *Journal of Environmental Management* **320**: 115843.
30. Shinde R, Shahi DK, Mahapatra P, Singh CS, Naik SK, Thombare N and Singh AK (2022). Management of crop residues with special reference to the on-farm utilization methods: A review. *Industrial Crops and Products* **181**: 114772.
 31. Singh A, Kaur R, Shera P S, Sharma S, Thakur A, Mangat H K and Mohanasundaram A (2022). Diversity of natural enemies associated with lac insect *Kerria lacca* (Kerr) in Punjab. *Indian Journal of Entomology* DOI: 10.55446/IJE.2022.58.
 32. Singh VK, Panda KC, Sagar A, Al-Ansari N, Duan HF, Paramaguru PK, Vishwakarma DK, Kumar A, Kumar D, Kashyap PS and Singh RM (2022). Novel Genetic Algorithm (GA) based hybrid machine learning-pedotransfer function (ML-PTF) for prediction of spatial pattern of saturated hydraulic conductivity. *Engineering Applications of Computational Fluid Mechanics* **16**(1): 1082–1099.
 33. Sundaresh S, Sharma S, Bairwa A, Tomar M, Kumar R, Bhardwaj V, Jeevalatha A, Bakade R, Salaria N, Thakur K, Singh BP and Chakrabarti SK (2022). Spraying of dsRNA molecules derived from *Phytophthora infestans*, along with nanoclay carriers as a proof of concept for developing novel protection strategy for potato late blight. *Pest Management Science* **78**(7): 3183–3192.
 34. Thombare N, Kumar S, Kumari U, Sakare P, Yogi RK, Prasad N, Sharma KK (2022). Shellac as a multifunctional biopolymer: A review on properties, applications and future potential. *International Journal of Biological Macromolecules*, **215**: 203–223.
 35. Venkatesh YN, Mushineni A, Langlentombi LC, Rajgopal NN and Arunachalam A (2022). Chironji (*Buchanania lanzan* Spreng.): A new host for Idiocerinae leafhopper *Busoniomimus mudigerensis* (Viraktamath) (Hemiptera: Cicadellidae) from India. *Indian Forester* **148**(6): 600–605.
 36. Yogi RK, Pal G, Kumar A, Singh AK, Kumar N and Sharma KK (2022). Threat to the sustainable production of natural resins: A case of *rangeeni* strain of *Kerria lacca* (Kerr) in Eastern Plateau & Hills Region of South East Asia. *International Journal of Environment and Climate Change* **12**(12): 1582–1599.
 37. Yogi RK, Yadav SKS, Sharma SC, Thombare N and Govind P (2022). Value chain of natural resins in India. *Agri Journal World* **2**(11): 20–28.

1. Ghosal S and Roychowdhury A. (2023). Effect of Mother Tree, Sowing method, Heat treatment and Rainfall distribution on Germination per cent of Kusum seeds (*Schleichera oleosa* (Lour.) Oken.). *Indian Forester* **149**(6): 672-677 DOI: 10.36808/if/2023/v149i6/169449
2. Jadhav MM, Shashank PR, Rani AT, Mohanasundaram A, Rajgopal NN, Naik S, Patil R and Prakash NR (2023). DNA barcoding, morphological description and field diagnostics of *Eublemma amabilis* (Lepidoptera: Erebidiae). *Indian Journal of Entomology* **2023**: 96-100.
3. Rajgopal NN, Stuti, Ningombam A, and Langlentombi LC (2023). First record of leafhopper genus *Satsumanus* Ishihara from India (Hemiptera: Cicadellidae: Deltocephalinae) with description of a new species. *Zootaxa* **5271**(3): 589–594.
4. Thirupamreddy B, Rajgopal NN, Shashank PR, Baig MM, Ashoka KS, Srinivas C and Sathyanarayana K (2023). Butterfly Diversity in Sal Forests of Kharsawan Region of Seraikela-Kharsawan District, Kolhan Division, Jharkhand, India. *Indian Forester* **149**(6): 629–637.
5. Thombare N, Kumari U, Sakare P, Chowdhury AR, Lohot VD and Prasad N (2023). Indigenous technical knowledge on the medicinal uses of natural resins and gums in India. *Indian Journal of Traditional Knowledge* **22**(2): 340–349.
6. Thombare N, Mahto A, Singh D, Chowdhury AR and Ansari MF (2023). Comparative FTIR characterization of various natural gums: A criterion for their identification. *Journal of Polymers and the Environment* **31**: 3372–3380.