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Summary

Agronomist specialized in nutrient management of tropical tuber crops. Expertise in research on nutrient management with biochar on problem soils of Onattukara, Kerala.

Research Highlights

- Studied the organic production potential of *Plectranthus rotundifolius*.
 - Investigated on ideal tillage, soil conditioner and nutrition for productivity enhancement in *Xanthosoma sagittifolium* (L.) Schott.
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Experience

Joined Department of Agriculture Development and Farmers' Welfare as an Agricultural Officer in 2012

Joined Kerala Agricultural University as Assistant Professor (Agronomy) in the year 2019.

Education

- Graduated in Agricultural Science from Kerala Agricultural University (2010)
 - Post Graduation in Agronomy from Kerala Agricultural University (2012)
 - Ph.D in Agronomy from Kerala Agricultural University (2017)
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Area of Specialization

Nutrient management in tropical tuber crops

Research Projects

Ongoing

1. Standardization of biochar from different crop residues and its effect as soil conditioner on growth and yield of sesamum in Onattukara region
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Completed

1. External Aided Project entitled ‘Establishment of mushroom production unit at Onattukara Regional Agricultural Research Station, Kayamkulam’ funded by The State Horticulture Mission, Kerala.
 2. KAU – DoE – Annual Plan 2020-21 – Four day training programme entitled ‘Training on diversified farm enterprises in integrated farming system for women agripreneurs of Onattukara Sandy Plains.’
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Publications

Journal Articles

1. Jayapal, A. and Swadija, O. K. 2020. Tillage and nutrition for tannia (*Xanthosoma sagittifolium* (L.) Schott) raised as an intercrop in coconut gardens. *Asian J. Soil Sci.* 15(1):46-58.
 2. Jayapal, A. and O. K. Swadija 2021. Performance of tannia (*Xanthosoma sagittifolium* (L.) Schott) intercropped in coconut gardens as influenced by tillage, soil conditioner and nutrient management. *Green Farming* 12 (1&2): 24-29.
 3. Jayapal, A., Swadija, O. K., Resmi, A. R. and Lovely, B. 2021. Quality characters of Tannia (*Xanthosoma sagittifolium* (L.) Schott) as affected by tillage, planting methods, plant nutrition and application of soil conditioners. *Ag. Sci. Digest*
 4. Jayapal, A. and Kumari Swadija, O. (2020). Tillage and Nutrition for quality enhancement in Tannia (*Xanthosoma sagittifolium* (L.) Schott). *Int. J Agri. Sci.*, (12): 9984-9988.
 5. Jayapal, A. and Swadija, O. K. 2021. Quality augmentation through tillage and nutrition in tannia [*Xanthosoma sagittifolium* (L.). Schott]. *J. Crop and Weed* 17 (1): 56-67.
 6. Resmi, A. R., Lovely, B., Jayapal, A., Anila, S., Athira, A., Raj, G. S., Ruma, S. and Megha, G. K. 2021. Growth and yield of oyster mushroom (*Pleurotus florida*) as influenced by different ligno cellulosic materials as substrates. *Green Farming* 12 (1&2):68-71
 7. Jayapal, A. and Swadija, O. K. 2019. Yield augmentation in tannia (*Xanthosoma sagittifolium* (L.). Schott) as influenced by tillage, soil conditioner and nutrition. *J. Root Crops* 45 (1):23-31
 8. Resmi, A. R., Lovely, B., Jayapal, A., Suja G. and Chitra, N. 2021. Effect of inoculation of plant growth promoting rhizobacteria (PGPR) mix I formulations on plant growth, yield, disease incidence and disease severity of Rhizoctonia leaf blight of Amaranthus (*Amaranthus tricolor* L.). *Ind. J. of Agricul Res.*
 9. Jayapal, A., Mini, V., Resmi, A. R., Lovely, B. and Suja, G. 2021. Management of Chocolate weed (*Melochia corchorifolia*) in sesame at Onattukara sandy tracts. *J. Crop and Weed* 17 (3): 237-240
 10. Jayapal, A., Mini, V., Resmi, A. R. and Lovely, B. 2021. Composting Limnocharis flava (L.) Buchenau: A comparative analysis. *J. Krishi Vigyan* 2021, 10 (1): 28-32.
 11. Jayapal, A., Swadija, O. K., and Vijayaraghavakumar 2020. Nutrient uptake, tuber yield and soil physico-chemical properties as influenced by tillage and nutrition for Tannia (*Xanthosoma sagittifolium* (L.). Schott) in the red soils of Southern Kerala. *J. Root Crops* 46 (2) :23-35.
 12. Sruthi, A. S., Indira, M. and Jayapal, A., 2022. Use of organic nano NPK affects yield and profitability in sesame. *J. Krishi Vigyan* 11 (1): 352-356.
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Short communications

13. Lovely B., Resmi A.R., Jayapal, A. and Gifty K.J. 2021. Screening sesamum germplasm for resistance to sesamum phyllody. *Green Farmg.* 12 (1&2): 90-92
14. Sruthi, A. S., Indira, M., Jayapal, A., Priya, G. and Rani, B. 2022. Soil application of organic nano NPK on growth, yield and quality of sesame (*Sesamum indicum*) in the Onattukara sandy tracts of Kerala. *Journal of Crop and Weed* 18 (1) :232-237

15. Unnikrishnan, D., Raj, S. K., Pillai, S. P., Ameena, M., Jacob, D. and Jayapal, A. 2022. Stimulatory effect of sesame on the germination and seedling growth of *Melochia corchorifolia* L. *Ind. J. Weed Sci.* 54 (3):341-344

Popular Articles

1. Lovely, B., B. and Jayapal, A. 2020. Biofortification of Cereals – An answer to hidden hunger. *Indian Farmer* 7(7):625-629
2. Jayapal, A., Lovely, B., Resmi A. R. and Suja G. 2020. Mexican Mint. *Kisan World* 47(8):7-9.
3. Resmi A. R., Lovely, B. and Jayapal, A. 2020. Mushroom cultivation: Added income to farmers. *Kisan World* 47(8):13-15.
4. Resmi, A. R., Jayapal, A., Lovely, B. and Lekshmi, S. L. 2020. Ecofriendly approaches in plant disease management. *Kerala Karshakan* 8(3):11-14.
5. Jayapal, A., Resmi, A. R. and Lovely, B. 2020. ‘Anaswarathayude vithu Krishi cheyyam shastreeyamaayi’. *Karshakan* 28 (10):61-62.
6. Resmi, A. R., Lovely, B. and Jayapal, A. 2020. ‘Rogamarinju sheethakaala chikilsa’. *Karshakan* 28 (11):30-33.
7. Lovely, B., Jayapal, A. and Resmi, A. R. 2020. Facts about ‘Swetakutaja’ or Ivory wood. *Kisan World* 47 (11):33-34.
8. Jayapal, A., Lovely, B. and Resmi, A. R. 2020. ‘Poshakasamrudham- Ilakariyakkaam maracheera’. *Karshakan*:44-45.
9. Jayapal, A. Swadija, O. K., Lovely, B. and Resmi, A. R. 2020. ‘Paalchemb Krishi shastreeyamaayi’. *Karshakan*:26-27.
10. Jayapal, A., Lovely, B., Resmi, A. R. and Vikram, K. 2021. Waste recycling through biochar – a sustainable approach. *Indian Farmer* 8 (5):394-397.
11. Jayapal, A., Resmi, A. R., Lovely, B., Mini, V. and Krishna, V. 2021. Managing the bitter chocolate: Chocolate weed management in Onattukara tract of Kerala. *Indian Farmer* 8 (6): 398-400.
12. Suja, G., Lovely, B., Resmi, A. R., Mini, V., Jayapal, A., and Lekshmi, S. L. 2021. *Machinga pozhichil parihaaram ingane*. *Karshakasree* : 30-32.
13. Resmi, A. R., Lovely, B. and Jayapal, A. 2021. *Koonkrishi aadayathinum aarogyathinum*. Kalpadhenu Jan.- Mar 2021
14. Lovely, B., Jayapal, A. and Resmi, A. R. *Thenginthoppil idavilayai oushadha sasyangal*. Kalpadhenu Jan- March 2021
15. Resmi, A. R., Jayapal, A. and Lovely, B. 2022. *Jaiva keedaroga niyandanopadhikal*. *Karshakan* 28-31.

Books/Chapters in Books

1. Swadija, O. K., Jayapal, A., Padmanabhan, V. B. (2016). Tropical Tuber Crops. In: Rao, N., Shivashankara, K., Laxman, R. (eds.). In: Abiotic Stress Physiology of Horticultural Crops. Springer, New Delhi. http://doi.org/10.1007/978-81-322-2725-0_19.
2. Resmi, A.R., Jayapal. A., and Lovely, B. 2022. Alternaria Toxins: Induction Leaf Blight Disease of Cucurbits. Singh, D., Devappa, V., Jahagirdar, S., Gautam, H. R. and Aggarwal, R. (eds.). In: Management of Postharvest Diseases and Value Addition of Horticultural Crops. Today and Tomorrow’s Printers and Publishers, New Delhi. Pp. 368.

Student Guidance (Major Advisor/ Advisory Committee member)

M. Sc.

Within KAU: Ongoing: 3

Membership in Professional Associations

1. Life membership in The Indian Society of Root Crops