

BIODATA

Dr. YALAVARTHI NAGARAJU, M.Sc (Ag.), Ph.D (Ag.).

ICAR-SRF fellow, Gold Medalist.

Scientist-B (Agricultural Microbiology), CSR & TI, Berhampore, WB.

Fathers Name : YALAVARTHI PARAMESWARA RAO
Mother name : YALAVARTHI PADMAVATHI
Gender : Male
Nationality : Indian
Category : General (Gen/OC)
Dicipline : Agricultural Microbiology
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Research Interests

Plant-microbe interactions,
Soil microbiology, biogeochemical cycling, nutrient management in crops, biodiversity of soil microorganisms, biotic and abiotic stress management in crops,
nanoparticles biosynthesis, characterization, evaluation, bio-products design, development and evaluation, consortium and biofilms, Biological control of plant pathogens etc.,

Education

2016-09 – 2019-10	University of Agricultural Sciences Raichur, Karnataka (UASR) The Department of Agricultural Microbiology -9.22/10 Thesis title: “Study on alleviation of salinity stress in chickpea and black gram using native halophilic bacterial isolates” Supervisor: Rtd. Dr. R.C. Gundappagol, Principal Scientist at AICRP in pulses Academic achievements: 1. Received <i>ICAR-SRF fellowship</i> for Ph.D. program 2. Received <i>University Gold medal</i> for securing the highest OGPA
2014-08- 2016-07	Professor Jayashankar Telangana State Agricultural University, Hyderabad, Telangana (PJ TSAU) The Department of Agricultural Microbiology – 9.03/10 Thesis Title: “Study of biofilm formation of zinc solubilizing and potassium releasing bacteria and their agrochemical Compatability” Supervisor: Dr. S. Triveni, Professor and University Head, PJ TSAU, Hyderabad Academic achievements: 1. Secured <i>University topper</i> in the concerned department 2. Received state scholarship for Masters's degree

2010-08 – 2014-04	<p>Acharya N.G Ranga Agricultural University, Agricultural College, Bapatla, Guntur (ANGRAU)</p> <p>Academic achievements -8.35/10</p> <ol style="list-style-type: none"> 1. Received <i>Thettu Charitable Trust Merit</i> scholarship for Four years of B.Sc. Program 2. Received stipend for RAWEP program from ICAR 3. Worked as the leader in Agricultural Experimental Learning Programme and Rural Agricultural Work Experience program
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Professional Appointments

11-2023 to till date	<p>Scientist B</p> <p><i>Central Sericultural Research and Training Inistitute Berhampore, West bengal, India</i></p>
06-2022- 2023-11	<p>Senior technical officer (STO)</p> <p><i>ICAR-National Bureau of Agriculturally important Microorganisms (NBAIM), Mau, Uttar Pradesh</i></p> <p>Worked at culture collection</p>
2022-03 – 2022-06	<p>Research Associate</p> <p><i>Winter Nursery Center, Indian Institute of Maize Research, Rajendranagar, Hyderabad</i></p> <p>Worked in the NASF project “Sustainable management strategies for the control of Fall army worm on maize.”</p>
2021-12 – 2022-03	<p>Research Associate</p> <p><i>Agribiotech (NGO), Rajendranagar</i></p> <p>Worked on biofertilizers production trainings to the farmers and stakeholders.</p>
2020-02 – 2021-11	<p>Research Associate</p> <p><i>Agricultural Research Starion, Amaravathi, Guntur</i></p> <p><i>Acharya N.G Ranga Agricultural University, Lam, Guntur, A.P.</i></p> <p>Involved in commercial biofertilizers production, quality control, strain identification, characterization, analysis of the agricultural department and private company biofertilizers and biopesticides samples, nutrient analysis of plant and soil samples, and also involved in office works.</p>
2019-10- 2020-01	<p>Contractual Lecturer</p> <p><i>Dr. YSR Horticultural University, College of Horticulture, Venkataramannagudem</i></p> <p>Taught undergraduate, postgraduate, and Ph.D. courses for one semester</p>

Reviewer for

1.	<i>Scientific Reports</i>
2.	<i>Frontiers in Microbiology</i>
3.	<i>Archives of Microbiology</i>
4.	<i>Plants, People, Planet</i>
5.	<i>Vegetos</i>
6.	<i>Qeios</i>
7.	<i>Indian Journal of Microbiology Research</i>
8.	<i>International Journal of environment and climate change</i>
9.	<i>Biocell</i>
10.	<i>Plant cell biotechnology and molecular biology</i>
11.	<i>Journal of advances in food science and technology</i>
12.	<i>Asian Journal of advances in Agricultural Research</i>

Editorial board member

2022-06-09 (yyyy-mm-dd)	Indian Journal of Microbiology Research Official publication of Innovative Education and Scientific Research Foundation
2022-06-09	International Journal of Medical Microbiology and Tropical Diseases Official publication of Khyati Education and Research Foundation

Books and Book Chapters

Published

2023-07	<i>Cyanobacterial Bioinoculants for Abiotic Stress Management in the Changing Climate Scenario.</i> In: Singh, S., Prasanna, R., Pranaw, K. (eds) Bioinoculants: Biological Option for Mitigating global Climate Change. Springer, Singapore. https://doi.org/10.1007/978-981-99-2973-3_8
2023-05	<i>Global Climate Perturbations: Sustainable Microbial Mitigation Strategies.</i> In: Mathur, P., Kapoor, R., Roy, S. (eds) Microbial Symbionts and Plant Health: Trends and Applications for Changing Climate. Rhizosphere Biology. Springer, Singapore. https://doi.org/10.1007/978-981-99-0030-5_1
2023-04	<i>Antibacterial response of nanostructured chitosan hybrid materials</i> In: Sarat KS, Anuradha B., Chitosan nanocomposites bionanomedical applications. Springer, Singapore. https://doi.org/10.1007/978-981-19-9646-7
2023-03	<i>Detection and diagnosis of Important soil Borne Pathogens</i> In: Singh, U.B., Kumar, R., Singh, H.B. (eds) Detection, Diagnosis and Management of Soil-borne Phytopathogens. Springer, Singapore. https://doi.org/10.1007/978-981-19-8307-8_5
2018-04	<i>General Agriculture Refresher</i> , Scire Science Ltd., Kerala, ISBN: 9788193400944
2017-12	<i>Microbiology</i> , Scire Science Ltd., Kerala ISBN: 9788193400937
2017-07	<i>Glimpses of Microbiology</i> , Scire Science Ltd., Kerala ISBN: 9788193400906
2017	<i>“Biocontrol agents in disease and pest management: Mechanisms and applications,”</i> Research Trends in Agricultural Sciences, Akinik Publications, New Delhi ISBN: 9789388112123
2017	<i>“Recent trends in plant-microbe insect interactions,”</i> Advances in agriculture Sciences, Akinik Publications, New Delhi ISBN: 9789353350024
2018	<i>“Differentiation in microorganisms”</i> Research In Microbiology Vol. 1 Akinik Publications, New Delhi ISBN:
Under communication	
2022	Y. Nagaraju , Praveen S. Patted, Nazia Manzar and Abhijeet S Kashyap. Recent developments in the detection and diagnosis of Fungal-Bacterial plant pathogens- from lab assay to field detection. <i>Springer Nature</i> .
2022	V. Mageshwaran Paul Raj and Y. Nagaraju Current insights into the role of rhizosphere bacteria in disease suppression in millets. Willey and Sons
2022	Y. Nagaraju , D. Manoj Kumar, Praveen S. patted, Promod Kumar Sahu, S. Ajit Kumar

	Supplementing micronutrients to plants through microbes. Springer Nature
2022	Y. Nagaraju , Praveen S Patted, Duppala Manoj Kumar Silver nanoparticles in sustainable management of plant pathogens. Wiley and Sons.

International Publications

1. Sahu, P.K., Jayalakshmi, K., Tilgam, J., Gupta, A., **Nagaraju, Y.**, Kumar, A., Hamid, S., Singh, H.V., Minkina, T., Rajput, V.D. and Rajawat, M.V.S. (2022) ROS generated from biotic stress: Effects on plants and alleviation by endophytic microbes. *Front. Plant Sci.* 13:1042936. doi: 10.3389/fpls.2022.1042936. **NAAS: 11.62**
2. Triveni, S. and **Nagaraju, Y.** (2022) Biosynthesis of silver nanoparticles from *Pseudomonas fluorescens* and their antifungal activity against *Aspergillus niger* and *Fusarium udum*. *Annals of Applied Biology.* **NAAS-8.75**
3. **Nagaraju, Y.**, Gundappagol, R.C. Mahadevaswamy (2020). Mining saline soils to manifest plant stress alleviating halophilic bacteria. *Curr. Microbiol.* **77**, 2265–2278 (2020). <https://doi.org/10.1007/s00284-020-02028-w>. **NAAS-8.19**
4. **Nagaraju, Y.**, Mahadevaswamy, Naik, N.M., Gowdar, S.B., Narayanarao, K. and Satyanarayanarao, K. (2021). ACC deaminase-positive halophilic bacterial isolates with multiple plant growth-promoting traits improve the growth and yield of Chickpea (*Cicer arietinum* L.) under salinity Stress. *Front. Agron.* 3:681007. doi: 10.3389/fagro.2021.681007.
5. Sharath, S., Triveni, S., **Nagaraju, Y.**, Latha, P.C. and Vidyasagar, B. (2021). The role of phyllosphere bacteria in improving cotton growth and yield under drought conditions. *Front. Agron.* 3:680466. doi: 10.3389/fagro.2021.680466.
6. Prasanna Kumar, B., Trimurtulu, N., Vijaya Gopal, A. and **Nagaraju, Y.** (2022). Impact of culturable endophytic bacteria on soil aggregate formation and Peanut (*Arachis hypogaea* L.) growth and yield under drought conditions. *Curr Microbiol.* **79**:308. <https://doi.org/10.1007/s00284-022-03000-6> **NAAS: 8.19**
7. **Nagaraju, Y.**, Mahadevaswamy, Gowder, S.B. (2022). Harnessing the saline soil-inhabiting bacteria for antagonistic, antibiotic resistance, and plant growth-promoting attributes. *Vegetos.* <https://doi.org/10.1007/s42535-022-00466-4> **NAAS: 5.42**

Papers in communication

1. Manasa, S., Mahadevaswami, **Nagaraju, Y.**, Nagar. M. Naik., et al., Contriving microbial formulations and exploring their potential role in supplementing Zinc and Phosphorus in low-land rice. Biology and Fertility of soils. Sub: 20-07-2023, Status: In review
2. Chiranjeevi, M., Gowdar., **Y. Nagaraju**. The functional characterization and microcosm evaluation of sorghum plant invigorating rhizobacteria. Current Microbiology. Sub: 04-2023 Status: In review.
3. Sunil J., Atul, K., **Y. Nagaraju** et al., Molecular diversity analysis of Fusarium wilt (*Fusarium oxysporum* f.sp. *lentis*) of Lentil across India. *Vegetos* Sub: 04-2023 Status: In review
4. Suneel Kumar, G. V., Rajesh Chowdary, L., Bharathi, S., Sarada, O., **Nagaraju, Y.** Beet armyworm, *Spodoptera exigua* (hubner), off-season survival and life history on various host plants. Sub: 06-2023 Status: In review

National publications

1. **Y. Nagaraju**, S. Triveni, R. Subhash Reddy, B. Vidyasagar, B.P.Kumar, K.D. Chari (2017) Screening of zinc solubilizing and potassium releasing bacterial and fungal isolates from different rhizosphere soils. *The Bioscan*. 11(4): 2187-2192.
2. **Y. Nagaraju**, Mahadevaswamy, Gundappagol and Nagaraj M Naik (2020) Response of black gram to seed biopriming with facultative halophilic bacteria under salinity. *International Journal of Environment and Climate change*. 10(12): 561-571.
3. **Y. Nagaraju**, S. Triveni, A. Vijaya Gopal, G Thirumal, K. Bhavya and B. Prasanna Kumar (2017) *In vitro* Screening of Zinc solubilizing rhizospheric isolates for Agrochemicals compatibility. *Agriculture Update*. 12: 1500-1505.
4. **Y. Nagaraju**, S. Triveni, A. Vijaya Gopal, G. Thirumal, B. Prasanna Kumar, and P. Jhansi (2017) *In vitro* Screening of Zn solubilizing and Potassium releasing isolates for Plant Growth Promoting (PGP) characters. *Environmental, Pharmacology and Life sciences*. 6(3): 590-597.
5. **Y. Nagaraju**, S. Triveni, R. Subhash Reddy, B. Vidyasagar (2017) Screening of Potassium releasing rhizospheric isolates for Agrochemicals compatibility. *IJCMAS*. 6(11): 372-378.
6. **Y. Nagaraju**, S. Triveni, R. Subhash reddy, and P. Jhansi (2016) Biofilm formation of zinc solubilizing, potassium releasing bacteria on the surface of fungi. *IJCMAS*. 6(4): 2037-2047.
7. Swapna, PS Prabhamani, SK Savita and **Yalavarthi Nagaraju** (2019) Potentials of endophytic bacteria in sustainable agriculture and genomic approach in plant-endophytic interactions. *Journal of Pharmacognosy and Phytochemistry*. 8(1): 2166-2168.
8. Mahadevaswamy and **Yalavarthi Nagaraju** (2018) Role of halophilic microorganisms in agriculture. *Journal of Pharmacognosy and Phytochemistry*. 7(3): 1063-1071.
9. K. Bhavya, R. Subhashreddy, S. Triveni, K. Damodhara chari, G. Thirumal and **Y. Nagaraju** (2017). Study of Shelflife of Carrier Biofertilizers from Different Production Centers. *IJCMAS*. 6(6): 1776-1783.
10. K. Bhavya, R. Subhashreddy, S. Triveni, K. Damodhara chari, G. Thirumal and **Y. Nagaraju** (2017) Effect of carrier and liquid biofertilizer on the growth of mungbean using a different method of application. *Agriculture Update*. (6)2017/1514-1519.
11. G. Thirumal, R. Subhash Reddy, S. Triveni, **Y. Nagaraju** and B. Prasanna kumar (2017) Screening of Native *Rhizobia* and *Pseudomonas* Strains for Plant Growth Promoting Activities. *IJCMAS*. 6(7): 616-625.

Conferences

Year	Title
2017	National conference on Technological challenges in Social, Environmental and Agricultural reforms (TECHSEAR-2017)
2016	Conference on Soil health, Soil quality assessment and Management for sustainable agriculture International Conference on Emerging trends in synthesis of Nanoparticles in Agri biotechnology- research and commercialization Received Best poster-2nd prize (Biosynthesis of Nanoparticles by Microorganisms and their applications) Abstract published- Evaluation of Zinc solubilization potential of bacterial and fungal isolates
2015	National conference on Reinvigorating agricultural innovations
2014	National conference on Emerging challenges and opportunities in biotic and abiotic stress management One day National Seminar on Migration of farmers from farming to non-farming

Internship/workshop

Year	Title
2016	Workshop on ICT enabled information systems and services for agricultural extension
2014	one month internship at ABIRD (Andhra bank institute of rural development), Kothapet, Guntur, Andhra Pradesh
2014	Agricultural Experiential Learning Program (AELP) Agricultural college, Bapatla, ANGRAU, Guntur As an active group member and leader of the batch <ul style="list-style-type: none">• Learned production and marketing of bhendi, cluster bean, radish, leafy vegetables• Produced vermicompost and vermiwash Technical knowledge gained on different aspects of disease detection, prevention, and Management of important pests
2013	Rural Agricultural Work Experience Programme (RAWEP) at Gouravaram, Krishna district, Andhra Pradesh, India. <ul style="list-style-type: none">• Equipped with meaningful insight into socio-economic conditions of farmers• Conducted method and result demonstrations in the village• Documented the Indigenous Technical Knowledge of farmers, entrepreneurs, and Self-Help Groups

Membership and other activities

Lifetime member of Asian PGPR society
Holder of NCC "B" certificate
Active participant and member in National Service Scheme (NSS)
