

## FACULTY PROFILE

Name : **Dr. R. POONGUZHAN**

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Area of Specialization : Weed Management,  
Soil Fertility and Nutrient management  
Farming system

Years of Experience : 27 years



### RESEARCH PUBLICATIONS:

Research Articles (International)	Research Articles (National)	Research Notes
<b>10</b>	<b>13</b>	<b>7</b>

Conference / Seminar / Symposium Papers	Manuals (Teaching / Training / E-Courses)	Popular Articles / Pamphlet / Leaflet
<b>60</b>		

Students guided	UG	PG	PhD
	<b>17</b>	<b>As Chairman – 14 As Member – 38</b>	<b>NIL</b>

### RESEARCH ARTICLES IN INTERNATIONAL JOURNALS

1. Kiranmai, N.A., Mohan, R., **Poonguzhalan, R.** and Nadaradjan, S., 2020. Performance of rice varieties, irrigation methods and foliar spray on growth attributes of aerobic rice. *Internatl. J. agric. Sci.*, **16**(2): 105-111. doi: [10.15740/HAS/IJAS/16.2/000-000](https://doi.org/10.15740/HAS/IJAS/16.2/000-000).
2. Kiranmai, N.A., Mohan, R., **Poonguzhalan, R.** and Nadaradjan, S., 2020. Agronomic and physiological measures to enhance the yield and water productivity of aerobic rice in coastal deltaic region of Karaikal. *Internatl. J. agric. Sci.*, **16**(2): 247-252. doi: [10.15740/HAS/IJAS/16.2/000-000](https://doi.org/10.15740/HAS/IJAS/16.2/000-000).
3. Ramya, K. and Poonguzhalan, R., 2020. Physical and economic levels of nitrogen for aerobic rice under different establishment methods, *Int. J. Curr. Microbiol. App. Sci.*, **9**(5): 985-992. doi: <https://doi.org/10.20546/ijcmas.2020.905.108>

4. Deepa, R., Sankar, R, Omar Hattab, K. and **Poonguzhalan, R.**, 2017. Suitability of ground water for irrigation in Thirunallar Commune of Karaikal District, U.T. of Puducherry. *Trends in Biosciences*, **10**(5): 1257-1260
5. Saravanane, P., **Poonguzhalan, R.** and Chellamuthu, V. 2012. Parthenium (*Parthenium hysterophorus* L.) distribution and its bio-resource potential for rice production in Puducherry, India. *Pakistan Journal of Weed Science and Research*, **18**: 551-555.
6. Ayyadurai, P. and **Poonguzhalan, R.** 2010. Critical period of crop-weed competition in zero-till cotton (*Gossypium hirsutum* L.). *Green Farming*, **1**(5): 470-473.
7. Narayanan, AL., Veerabadran, V. and **Poonguzhalan, R.** 1999. Performance of low dose high efficacy herbicide for weed control in transplanted rice. *Oryza*, **36**(3): 290 - 292.
8. Nanjappa, H.V., **Poonguzhalan, R.** and Ramachandrappa, B.K. 1999. Influence of sunflower on subsequent crops. *Allelopathy Journal*, **6**(1): 69-74.
9. Mohan, R., Aruna, L., Rammohan, J. and **Poonguzhalan, R.** 1998. Lock-lodge technology for rice ratooning. *IRRN*, **23**(3): 24.
10. **Poonguzhalan, R.**, Nanjappa, H.V. and Ramachandrappa, B.K. 1995. Increasing fertilizer use efficiency through effective weed control in sunflower. *Crop Research*, **9**(2): 181-187.

## **RESEARCH ARTICLES IN NATIONAL JOURNALS**

1. Saravanane, P., **Poonguzhalan, R.**, Vijayakumar, S. and Pooja, K., 2020. Crop-weed competition in blackgram in coastal deltaic eco-system. *Indian Journal of Weed Science*, **52**(3):283-285. DOI: <http://dx.doi.org/10.5958/0974-8164.2020.00054.4>
2. Pavithra, M. and **Poonguzhalan, R.**, 2018. Weed flora of aerobic rice and their effect on growth, yield and nutrient uptake of rice (*Oryza sativa*) in the coastal region of Karaikal, Puducherry, India. *Journal of Applied and Natural Science*, **10**(1): 397-402.
3. Pavithra, M., **Poonguzhalan, R.**, Narayanan, AL. and Sundaravarathan, S. 2017. Bispyribac sodium – Early post-emergence herbicide for weed control in aerobic rice (*Oryza sativa* L.). *Agriculture Update*, **12**(1): 270-276 DOI: [10.15740/HAS/AU/12.TECHSEAR\(1\)2017/270-276](https://doi.org/10.15740/HAS/AU/12.TECHSEAR(1)2017/270-276)
4. Umamaheswari, L. Chandrasekar, V., Swaminathan, N. and **Poonguzhalan, R.** 2013. Technical efficiency of freshwater aquaculture farms in the Union Territory of Puducherry: frontier production function approach. *Indian Journal of Fisheries*, **60**(2): 93-98.

5. Narayanan, AL., Chellamuthu, V. and **Poonguzhalan, R.** 2012. Performance of *Jatropha curcas* under lowland and upland of Karaikal in Union Territory of Puducherry. *Madras Agricultural Journal*, **99** (Special issue): 49.
6. Ayyadurai, P. and **Poonguzhalan, R.** 2011. Critical period of crop-weed competition in zero-till cotton. *Indian Journal of Weed Science*, **43**(3&4) : 228–230.
7. Karunakaran, V., Rammohan, J., Chellamuthu, V. and **Poonguzhalan, R.** 2010. Effect of integrated nutrient management on growth and yield of groundnut (*Arachis hypogaea* L.) in coastal region of Karaikal. *Indian Journal of Agronomy*, **55**(2): 128-132.
8. Ayyadurai, P. and **Poonguzhalan, R.** 2010. Effect of weed control on nutrient depletion by weeds and nutrient uptake by cotton in rice-fallow cotton. *Madras Agricultural Journal*, **97** (7-9) : 249 – 250.
9. Sathyavelu, A., Somasundaram, E. and **Poonguzhalan, R.** 2002. Effect of tillage practices on the management of *Cyperus rotundus* (Nut sedge) and yield attributes, yield and quality of sugarcane. *Indian Sugar*, April 2002: 27-31.
10. Sathyavelu, A., Somasundaram, E., **Poonguzhalan, R.** and Rangaraj, T. 2002. Integrated weed management in sugarcane. *Indian Sugar*, March 2002: 871-873.
11. Selvam, V., Ramachandra Boopathi, S.N.M., Narayanan, AL. and **Poonguzhalan, R.** 2001. Effect of time of sowing and weed management practices in semi-dry rice. *Madras Agricultural Journal*, **88**(1-3): 12-16.
12. Rammohan, J., Narayanan, AL., **Poonguzhalan, R.**, Mohan, R. and Mohamed Hanifa, A. 1999. Efficacy of pre-emergence herbicides for weed control in lowland transplanted rice in the coastal saline soils. *Indian Journal of Weed Science*, **31**(3&4): 142-144.
13. Rammohan, J., Chandrasekharan, B., **Poonguzhalan, R.** and Subramanian, M. 1999. Alternate cropping system for single rice based lowlands of Karaikal region of Union Territory of Pondicherry. *Madras Agricultural Journal*, **86** (7-9): 351-355.

## **RESEARCH NOTES IN NATIONAL JOURNALS**

1. John Daniel, P.S., **Poonguzhalan, R.**, Mohan, R. and Suburayalu, E. 2012. Weed management for enhanced production of aerobic rice. *Indian Journal of Weed Science*, **44**(4) : 270–273.
2. Rammohan, J., Chandrasekharan, B., Manian, K. and **Poonguzhalan, R.** 2001. Production potential of rice (*Oryza sativa*) based cropping systems in lowlands of canal command areas. *Agronomy Digest*, **1**: 1-3.

3. Narayanan, AL., **Poonguzhalan, R.**, Mohan, R., Rammohan, J., Suburayalu, E. and Mohamed Hanifa, A. 2001. Chemical weed management in transplanted rice in Karaikal region of Pondicherry Union Territory. *Madras Agricultural Journal*, **87**(10-12): 691-692.
4. **Poonguzhalan, R.**, Nanjappa, H.V. and Ramachandrappa, B.K. 1996. Effect of fertilizer levels and weed control methods on NPK uptake by sunflower and weeds. *Annals of Agricultural Research*, **17**(1): 107-110.
5. Nagaraju, **Poonguzhalan, R.** and Nanjappa, H.V. 1995. Progression of alternaria leaf spot severity and its effect on growth and yield parameters of sunflower as influenced by sunflower stalk mulching. *Journal of Oilseed Research*, **12**(2): 271-274.
6. **Poonguzhalan, R.** and Nanjappa, H.V. 1995. Residual effect of pendimethalin and sunflower on succeeding crops. *Indian Journal of Weed Science*, **27**(1&2): 87-88.
7. Nagaraju, **Poonguzhalan, R.** and Nanjappa, H.V. 1993. Role of sunflower stalk mulching in developing the initial inoculum of alternaria leaf spot of sunflower. *Journal of Oilseed Research*, **10**(2): 317-318.

## RESEARCH ARTICLES IN INTERNATIONAL CONFERENCES/ SEMINARS/SYMPOSIA

1. Ramya, K. and **Poonguzhalan, R.**, 2020. Yield and nitrogen use efficiency of aerobic rice as influenced by establishment methods and nitrogen levels. *In Proceedings of International Conference on "Recent trends in agriculture towards food security and rural livelihood"*, Annamalai University, Chidambaram, India, 03-04 January, p.41.
2. Saravanane, P., **Poonguzhalan, R.**, Sridevi, R. and Santosh Kumar Meena, 2018. Integrated weed management strategies in direct-seeded semi-dry rice. *In Proceedings of ISWS Golden Jubilee International Conference on "Weeds and Society: Challenges and Opportunities"*, ICAR-Directorate of Weed Research, Jabalpur, India, 21-24 November, p.217.
3. John Daniel, P.S. and **Poonguzhalan, R.**, 2015. Evaluation of different weed management practices in aerobic rice in coastal areas of Karaikal. *In Proceedings of 25<sup>th</sup> Asian-Pacific Weed Science Society Conference on "Weed Science for Sustainable Agriculture, Environment and Biodiversity"*, Hyderabad, India, 13-16 October, Vol. III p.119.
4. **Poonguzhalan, R.**, Pavithra, M., Narayanan, AL., Sundaravarathan, S. and Mohan, R. 2015. Evaluation of bispyribac sodium for weed control in aerobic rice. *In Proceedings of 25<sup>th</sup> Asian-Pacific Weed Science Society Conference on "Weed Science for Sustainable Agriculture, Environment and Biodiversity"*, Hyderabad, India, 13-16 October, Vol. III p.127.

5. Saravanane, P., Ramanadane, T. and **Poonguzhalan, R.** 2015. Allelopathic potential of botanicals against *Parthenium*. *In Proceedings of 25<sup>th</sup> Asian-Pacific Weed Science Society Conference on "Weed Science for Sustainable Agriculture, Environment and Biodiversity"*, Hyderabad, India, 13-16 October, Vo. III p.462.
6. Ayyadurai, P. and **Poonguzhalan, R.**, 2015. Crop-weed competition for nutrients in cotton. *In Proceedings of 25<sup>th</sup> Asian-Pacific Weed Science Society Conference on "Weed Science for Sustainable Agriculture, Environment and Biodiversity"*, Hyderabad, India, 13-16 October, Vol. III, p.493.
7. Pavithra, M. and **Poonguzhalan, R.**, 2015. Weed flora of aerobic rice in the coastal region of Karaikal, Puducherry. *In Proceedings of 25<sup>th</sup> Asian-Pacific Weed Science Society Conference on "Weed Science for Sustainable Agriculture, Environment and Biodiversity"*, Hyderabad, India, 13-16 October, Vol. II, p.66
8. Ayyadurai, P. and **Poonguzhalan, R.**, 2015. Interference of weed competition in rice fallow cotton. *In Proceedings of 25<sup>th</sup> Asian-Pacific Weed Science Society Conference on "Weed Science for Sustainable Agriculture, Environment and Biodiversity"*, Hyderabad, India, 13-16 October, Vol. II, p.79
9. **Poonguzhalan, R.**, Saravanane, P. and Chellamuthu, V. 2012. Ecological distribution of water hyacinth and *Parthenium* in the Union Territory of Puducherry. *In Proceedings of 3<sup>rd</sup> International Agronomy Congress*, 26-30 November, New Delhi, India, Extended Summaries Vol. 2, pp. 194-195.
10. John Rohit Katuri, Mohan, R., **Poonguzhalan, R.** and Suburayalu, E. 2012. Performance of aerobic rice under drip fertigation in the coastal deltaic region of Karaikal. *In Proceedings of 2012 IRRI Young Scientists Conference – Sustaining Excellence in Rice Research*, 8-9 November, International Rice Research Institute, Laos Banos, Laguna, Philippines, p.60
11. Saravanane, P., **Poonguzhalan, R.** and Chellamuthu, V. 2011. *Parthenium* (*Parthenium hysterophorus* L.) distribution and its bio-resource potential for rice production in Puducherry, India. *In Proceedings of 23<sup>rd</sup> Asian-Pacific Weed Science Society Conference*, 26-29 September, Queensland, Australia, pp.472-475.
12. **Poonguzhalan, R.** and Kandasamy, O.S. 2005. Role of fish and azolla in conjunction with herbicides in controlling weeds and sustaining the productivity of rice. **Abs.** *In Proceedings of First International Weed Seminar on Innovative approaches for eco-safety weed management*, 21- 24 January, West Bengal Weed Science Society, Bidan Chandra Krishi Viswavidyalaya, Kolkata, India. pp. 108-109.
13. Suburayalu, E., Narayanan, AL., Mohan, R., **Poonguzhalan, R.**, Mohamed Hanifa, A. and Sathyanarayana, T. 1998. Geomorphologic instantaneous unit hydrograph (GIUH) of watershed. *In Proceedings of International Conference on watershed management and conservation*, 8-10 December, New Delhi, India. p. 538-552.

14. Narayanan, AL., **Poonguzhalan, R.**, Rammohan, J., Mohan, R. and Mohamed Hanifa, A. 1998. Role of environmental friendly herbicides for rice weed management. **Abs.** In *International Conference on Pest and Pesticide Management for Sustainable Agriculture*, 11 – 13 December, Kanpur, India. p. 132-133.

## **RESEARCH ARTICLES IN NATIONAL CONFERENCES/ SEMINARS/ SYMPOSIA**

1. Saravanane, P., Mohan, R., Balathandayutham, K. and **Poonguzhalan, R.**, 2017. Effect of herbigation on weed spectrum and yield of direct-seeded rice. **In: *Proceedings of Biennial Conference of the Indian Society of Weed Science on “Doubling Farmers’ Income by 2022: The role of Weed Science”***, 1-3 March, MPUA&T, Udaipur, India.
2. Abarna, G., Bagavathi Ammal, U., Baskar, A. and **Poonguzhalan, R.** 2015. Influence of rock phosphate with different amendments on phosphorous nutrient availability, yield and uptake of rice in inceptisol. **In: *Proceedings of National Seminar on Soil Resilience-2015***, January 21-22, Tamil Nadu Agricultural University, Madurai, pp.19-20.
3. Abarna, G., Bagavathi Ammal, U., Baskar, A. and **Poonguzhalan, R.** 2015. Phosphorous dissolution pattern of Mussoorie rock phosphate. **In: *Proceedings of National Seminar on Soil Resilience-2015***, January 21-22, Tamil Nadu Agricultural University, Madurai, pp.148-149.
4. **Poonguzhalan, R.** 2013. Influence of herbicides on growth, recovery and yield of fish in lowland integrated farming systems. **In: *Proceedings of UGC-SAP sponsored National Seminar on Farming Systems***, March 19, Annamalai University, Chidambaram, India, pp. 2-3.
5. **Poonguzhalan, R.** 2013. Nutrient uptake by rice and weeds as influenced by farming systems and weed control methods in lowlands. **In: *Proceedings of UGC-SAP sponsored National Seminar on Farming Systems***, March 19, Annamalai University, Chidambaram, India, pp. 3-4.
6. **Poonguzhalan, R.**, Shivashankar, K, Solaiyappan, AR. and Nasurudeen, P. 2012. Cauvery river and its dominance in agriculture in Karnataka and Tamil Nadu. **In: Status, Progress and Achievements of some land based Productive systems of Puducherry, Tamil Nadu and Karnataka**, Shivashankar, K., Anthoni Raj, S. and **Poonguzhalan, R** (Eds) pp. 84 – 95.
7. Ayyadurai, P. and **Poonguzhalan, R.** 2010. Influence of time of weed removal on nutrient uptake by weeds and zero-till cotton under rice fallows. **In: *Bienn. Conf. of Indian Soc. of Weed Sci. on Recent Advances in Weed Science Research***, February 25-26, Indira Gandhi Krishi Vishwavidyalaya, Raipur, p. 117.
8. Ayyadurai, P. and **Poonguzhalan, R.** 2010. Weed density and yield of zero-till cotton (*Gossypium hirsutum* L.) as influenced by critical period of crop weed competition. **In:**

*Bienn. Conf. of Indian Soc. of Weed Sci. on Recent Advances in Weed Science Research*, February 25-26, Indira Gandhi Krishi Vishwavidyalaya, Raipur, p. 190.

9. Karunakaran, V., Rammohan, J. and **Poonguzhalan, R.** 2009. Effect of integrated nutrient management on growth and yield of groundnut (*Arachis hypogaea* L.) cv. TMV 7 in coastal region of Karaikal. *In: Proc. Agricultural Sci. Congress*, June 22-24, Shoi-E-Kashmir Univ. of Agric. Sci. Technol., Kashmir, p. 145.
10. Ayyadurai and **Poonguzhalan, R.** 2009. Critical period of crop weed competition in zero till cotton in the coastal deltaic region of Karaikal. *In: Proc. Natl. Symp. Weed Threat to Environment, Biodiversity and Agricultural Productivity*, August 2-3, Tamil Nadu Agric. Univ., Coimbatore, p. 119.
11. Kavitha, V., Dhanasu Ammal, D. and **Poonguzhalan, R.** 2009. Influence of weed control methods on nutrient use efficiency in rice. *In: Proc. Natl. Sem. Recent Adv. in Soil Health and Crop Management for Sustainable Agriculture*, Feb. 26-27, Annamalai University, Chidambaram, p. 46
12. Buvanewari, J., Rammohan, J., **Poonguzhalan, R.** and Omar Hattab, K. 2008. Effect of foliar nutrition and salicylic acid on growth parameters. *In: Proceedings of National Symposium on Integrated approaches for productivity enhancement in Agriculture*, 13-14 March, Annamalai Univ., Chidambaram, p. 18-19.
13. Buvanewari, J., Rammohan, J., **Poonguzhalan, R.** and Omar Hattab, K. 2008. Enhancing the productivity of rice in Cauveery delta zone. *In: Proceedings of National Symposium on Integrated approaches for productivity enhancement in Agriculture*, 13-14 March, Annamalai Univ., Chidambaram, p. 19.
14. **Poonguzhalan, R.**, Kandasamy. O.S. and Suburayalu, E. 2008. Growth and yield of rice as influenced by farming systems and weed control methods. *In: Proceedings of National Symposium on Integrated approaches for productivity enhancement in Agriculture*, 13-14 March, Annamalai Univ., Chidambaram, p. 30.
15. Gunavathi, S., Rammohan, J., **Poonguzhalan, R.** and Omar Hattab, K. 2008. Effect of weed management methods on growth and yield of wet seeded rice. *In: Proceedings of National Symposium on Integrated approaches for productivity enhancement in Agriculture*, 13-14 March, Annamalai Univ., Chidambaram, p. 36.
16. **Poonguzhalan, R.** 2008. Sustaining the productivity of rice soils – A system approach. *In: Proceedings of National Symposium on Integrated approaches for productivity enhancement in Agriculture*, 13-14 March, Annamalai Univ., Chidambaram, p. 40.
17. **Poonguzhalan, R.**, Dhanasu Ammal, D., Rammohan, J. and Bagavathi Ammal, U. 2007. Enhancing fertilizer use efficiency through weed control in rice. *In: Proceedings of National Symposium on Research Priorities and strategies in rice production system for second green revolution*. 20-22 November, Central Rice Research Institute, Cuttack, p. 82.

18. Dhanasu Ammal, D., **Poonguzhalan, R.**, Rammohan, J. and Chellamuthu, V. 2007. Efficacy of new herbicides at varied fertilizer levels in transplanted rice **In: *Proceedings of National Symposium on Research Priorities and strategies in rice production system for second green revolution***. 20-22 November, Central Rice Research Institute, Cuttack, p. 82.
19. Gunavathi, S., Rammohan, J., **Poonguzhalan, R.** and Omar Hattab, K. 2007. Evaluation of herbicides in wet seeded rice **In: *Proceedings of National Symposium on Research Priorities and strategies in rice production system for second green revolution***. 20-22 November, Central Rice Research Institute, Cuttack, p. 84.
20. Gunavathi, S., Rammohan, J., **Poonguzhalan, R.**, Omar Hattab, K. and Chellamuthu, V. 2007. Effect of weed management methods on wet-seeded rice in Cauvery delta zone. **In: *Proceedings of National Seminar on Ecorestoration of soil and water resources towards efficient crop production***, 6-7 June, Bidan Chandra Krish Viswavidyalaya, Kolkata, p. 113-116.
21. Chellamuthu, V. and **Poonguzhalan, R.** 2006. Biodiversity of weeds in the rice ecosystems. **In: *Proceedings of National Conference on Agrobiodiversity***, 12-15 February, National Biodiversity Authority, Chennai, p. 12-13.
22. **Poonguzhalan, R.** and Kandasamy, O.S. 2005. Effect of integrated farming systems and weed control methods on weeds in rice. **Abs.** **In *Proceedings of National Seminar on Resource management for sustainable agriculture***, 17-18 March, Annamalai University, Annamalai Nagar, Tamil Nadu, p. 115.
23. **Poonguzhalan, R.** and Kandasamy, O.S. 2004. Increasing farm livelihood by integrating herbicides, fish and azolla for managing weeds in rice fields. **Abs.** **In *Proceedings of National Symposium on input use efficiency in agriculture – issues and strategies***, 25-27 November, Kerala Agricultural University, Thrissur, p. 110.
24. Sathyavelu, A., Sankaran, N., Somasundaram, E., **Poonguzhalan, R.** and Velayudham, A. 2002. Effect of weed management practices on growth attributes and yield of sugarcane. **In *Proceedings of 34<sup>th</sup> meeting of sugarcane research and development workers of Tamil Nadu***, 14-15 June, Sugarcane Breeding Institute, Coimbatore, pp. 114-117.
25. Sathyavelu, A., Sankaran, N., Somasundaram, E. and **Poonguzhalan, R.** 2002. Yield and quality of sugarcane as influenced by competition of *Cyperus rotundus* L. (Nut sedge) in the coastal areas. **In *Proceedings of 34<sup>th</sup> meeting of sugarcane research and development workers of Tamil Nadu***, 14-15 June, Sugarcane Breeding Institute, Coimbatore, pp. 117-120.
26. Sathyavelu, A., Sankaran, N., Somasundaram, E., **Poonguzhalan, R.** and Velayudham, A. 2002. Studies on integration of tillage and herbicides for weed control in sugarcane. **In *Proceedings of 34<sup>th</sup> meeting of sugarcane research and development workers of Tamil Nadu***, 14-15 June, Sugarcane Breeding Institute, Coimbatore, pp. 127-132.



27. Somasundaram, E., **Poonguzhalan, R.**, Pazhanivelan, S. and Mohamed Haroon, A.R. 2001. Management of raw sewage for irrigation to rice under sodic soil. **Abs.** In *National Seminar on management of problem soils for sustainable agriculture*, 29-30 November, Anbil Dharmalingam Agricultural College and Research Institute, Tamil Nadu Agricultural University, Trichy, pp. 45-46.
28. Somasundaram, E., **Poonguzhalan, R.**, Duraisamy, K. and Arokiaraj, A. 2001. Influence of irrigation methods on soil properties under sodic soil conditions. **Abs.** In *National Seminar on management of problem soils for sustainable agriculture*, 29-30 November, Anbil Dharmalingam Agricultural College and Research Institute, Tamil Nadu Agricultural University, Trichy, p. 59.
29. **Poonguzhalan, R.**, Nanjappa, H.V., Mohan, R., Narayanan, AL., Rammohan, J. and Subramanian, M. 2001. Growth and yield of sunflower as influenced by weed control methods under graded levels of nutrition. **Abs.** In *National Symposium on pulses and oilseeds for sustainable agriculture*, 29 – 31 July, Tamil Nadu Agricultural University, Coimbatore. p. 155.
30. Narayanan, AL., **Poonguzhalan, R.**, Rammohan, J., Mathiazhagan, K. and Mohamed Hanifa, A. 2000. Effect of sulfonyl urea group of herbicides for rice weed management. **Abs.** In *87<sup>th</sup> session of the Indian Science Congress*, Pune, p.3.
31. Narayanan, AL., **Poonguzhalan, R.**, Rammohan, J., Mathiazhagan, K. and Mohamed Hanifa, A. 2000. Effect of pretilachlor in controlling weeds of transplanted rice in Karaikal region of Pondicherry Union Territory. **Abs.** In *87<sup>th</sup> session of the Indian Science Congress*, Pune, p.4.
32. Rammohan, J., **Poonguzhalan, R.**, Mathiazhagan, K., Narayanan, AL., Mohan, R. and Mohamed Hanifa, A. 2000. Growth and yield of rice as influenced by nitrogen in Cauvery delta of U.T. of Pondicherry. **Abs.** In *87<sup>th</sup> session of the Indian Science Congress*, Pune, p.20.
33. Rammohan, J., Mathiazhagan, K., **Poonguzhalan, R.**, Mohan, R., Narayanan, AL. and Mohamed Hanifa, A. 2000. Influence of nitrogen levels on nutrient uptake and nitrogen use efficiency of rice in Cauvery delta of U.T. of Pondicherry. **Abs.** In *87<sup>th</sup> session of the Indian Science Congress*, Pune, p.21.
34. Mathiazhagan, K., Pandian, P., Pouchepparadjou, A., Rammohan, J., Mohan, R., **Poonguzhalan, R.**, and Mohamed Hanifa, A. 2000. Changes in phenols and sugars in rice varieties as influenced by bacterial blight pathogen. **Abs.** In *87<sup>th</sup> session of the Indian Science Congress*, Pune, pp.46-47.
35. Mathiazhagan, K., Rammohan, J., Pandian, P., Mohan, R., Pouchepparadjou, A., **Poonguzhalan, R.**, and Narayanan, AL. 2000. Effect of plant extract on the enzyme levels in rice plant inoculated with *Xanthomonas oryzae* pv. *oryzae*. **Abs.** In *87<sup>th</sup> session of the Indian Science Congress*, Pune, p.129.
36. Narayanan, AL., **Poonguzhalan, R.**, Rammohan, J., Mohan, R., Subramaniam, P.S. and Mohamed Hanifa, A. 1999. New herbicide for weed control in transplanted

lowland rice of Karaikal region. **Abs.** In 8<sup>th</sup> Biennial conference of Indian Society of Weed Science, February 5-7, Varanasi, India, p. 11.

37. Rammohan, J., Narayanan, AL., **Poonguzhalan, R.**, Mohan, R. and Mohamed Hanifa, A. 1999. Weed control efficacy of pre-emergence herbicides in lowland transplanted rice in the coastal saline soils. **Abs.** In 8<sup>th</sup> Biennial conference of Indian Society of Weed Science, February 5-7, Varanasi, India, p. 13.
38. Rammohan, J., Chandrasekharan, B., **Poonguzhalan, R.**, Mohan, R. and Subramanian, M. 1999. Nutrient uptake as influenced by nitrogen levels in single rice based cropping systems. In *Vistas of Rice Research*, TNRRI, pp. 255-260.
39. Rammohan, J., Chandrasekharan, B., **Poonguzhalan, R.**, Mohan, R. and Subramanian, M. 1999. Nutrient addition through crop residues in rice based cropping systems in coastal saline soils. In *Vistas of Rice Research*, TNRRI, pp. 261-265.
40. Mohan, R., Aruna, L., Rammohan, J., **Poonguzhalan, R.** and Subramanian, M. 1999. Performance of rice ratoon crop. In *Vistas of Rice Research*, TNRRI, pp. 280-284.
41. Aruna, L., Selvakumari, G., Mohan, R., Rammohan, J., **Poonguzhalan, R.** and Subramanian, M. 1999. N mineralization in conjoint application of green manures and gypsum in sodic rice soil. In *Vistas of Rice Research*, TNRRI, pp. 367-372.
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43. Vasanthakumar, M., **Poonguzhalan, R.**, Mohan R., Narayanan, AL. and Mohamed Hanifa, A. 1998. Management and utilization of saline water for agriculture. In *Seminar on Water resources*, March 25, Pondicherry. pp.243-247.
44. Ponni, A., **Poonguzhalan, R.**, Mohan R., Rammohan, J. and Mohamed Hanifa, A. 1998. Realization and management of Cauvery water in Karaikal region. In *Seminar on Water resources*, March 25, Pondicherry. pp.248-253.
45. Mohan, R. and **Poonguzhalan, R.** 1998. Lock-lodging: A technological boon for rice ratooning. **Abs.** In *National Symposium on rice research for 21<sup>st</sup> Century - Challenges, priorities and strategies*. February 5-7, Cuttack, India.
46. Mohan, R., Balasubramaniam, N., Subramanian, M. and **Poonguzhalan, R.** 1996. Lock-lodging: A technology to boost the yield and income of ratoon rice. **Abs.** In *National Symposium on technological advancements in rice production*. June 17-19, KAU, Kerala p. 63.

## Awards:

Sl. No.	Name of the award	Year	National/ State / University /College / Local
1.	ICAR – Junior Research Fellow	1991	National
2.	Received the <b>Best paper award</b> in the oral presentation of paper in the technical session “Efficiency in the user of agro-chemicals” of <b>ICAR National Symposium on Input Use Efficiency in Agriculture – Issues and strategies.</b>	2004	National

## RESEARCH PROJECTS

Sl. No.	Name of the scheme/ Project	Year/ Period	Position
1.	All India Coordinated Research Project on Oilseeds (Sunflower) – Voluntary Centre	Since 2005	Principal Investigator

## POST GRADUATE STUDENT GUIDED (As Chairman)

Sl. No.	Title of the thesis	Name of the student and year	Salient findings
1.	Effect of liquid nano-fertilizer on growth and yield of rice	Bassa Vasavi Kowsalya 20PAG301 2020 to 2022	On-going
2.	Effect of plant growth regulators on growth and yield of sesame ( <i>Sesamum indicum</i> L.)	Angel, I. 19 PAG301 2019 to 2021	Application of NAA 100 ppm at flowering and capsule formation stages is found to increase the growth, yield and gross return in sesame production.
3.	Effect of establishment methods and nitrogen levels on growth and yield of aerobic rice	Ramya, K. 17PAG304 2017 to 2019	Among the different methods of establishment (broadcasting, line sowing and transplanting) and nitrogen levels evaluated, transplanting rice with 150 kg N ha <sup>-1</sup> is found to be suitable agronomic practice for attaining higher yield and profit in aerobic rice. It is found that rice could be transplanted under aerobic conditions also.
4.	Evaluation of organic weed management practices in transplanted rice	Anju Thomas 15PAGR01 2015 to 2017	Mulching rice bran @ 1 t ha <sup>-1</sup> followed by hand weeding at 40 days after transplanting is found to be a suitable weed management option for getting higher yield and profit in organic transplanted rice.
5.	Crop-Weed competition studies in aerobic rice in the	Venkatesan, S. 2014680205	It is found that the critical period of crop-weed competition in aerobic rice in the

Sl. No.	Title of the thesis	Name of the student and year	Salient findings
	coastal region of Karaikal	2014 to 2016	coastal region of Karaikal lies between 5 and 83 days.
6.	Evaluation of herbicide mixtures for weed control in aerobic rice	Arthi, A. 13-507-501 2013 to 2015	Applying a mixture of bispyribac sodium 0.025 kg/ha + azimsulfuron 0.025 kg/ha at 10 DAS is found to control weeds effectively and resulted in higher yield and income in aerobic rice.
7.	Evaluation of pre- and post-emergence herbicide combinations for weed control in aerobic rice	Venkatesan, K. 13-507-504 2013 to 2015	In areas where labour is costly or at times when labour availability is inadequate, pre-emergence application of pendimethalin 1 kg ha <sup>-1</sup> followed by post-emergence application of bispyribac sodium 25 g ha <sup>-1</sup> is found to be suitable weed management practice for achieving higher yield and profit in aerobic rice.
8.	Evaluation of bispyribac sodium either alone or in sequence with pendimethalin for weed control in aerobic rice in the coastal areas of Karaikal	Pavithra, M. 12-507-503 2012 to 2014	Application of bispyribac sodium 25 g/ha at 10 DAS is the suitable weed management practice for controlling weeds in aerobic rice.
9.	Effect of plant growth regulators on growth, yield and maturity of cotton	B. Askok Pravin Kumar 11-507-502 2011 to 2013	Application of triaccontanol 5 ppm at 60 and 75 DAS can significantly increase the growth, yield and profit in cotton cultivation.
10.	Weed management in aerobic rice in the coastal areas of Karaikal	P.S. John Daniel 10-507-504 2010 to 2012	Application of pendimethalin 0.75 kg/ha at 3 DAS + Hand Hoeing at 40 DAS was found to be good weed management option in aerobic rice.
11.	Relative contribution of different agronomic practices in sunflower production	S.R. Rajeswari 07-606-501 2007 to 2009	Weeding followed by fertilizer application were found to be the most important yield determining agronomic practices.
12.	Crop-weed competition studies in zero-till cotton ( <i>Gossypium hirsutum</i> L.) in the coastal deltaic region of Karaikal	P. Ayyadurai 06-606-501 2006 to 2008	The critical period of cotton-weed-competition in zero-till cotton was found to be between 20 and 60 DAS.
13.	Influence of weed control methods on nutrient use efficiency in rice	D. Dhanasu Ammal 04-606-016 2004 to 2006	Controlling the weeds by Hand Weeding twice or application of almix 4 g/ha enhanced the Fertilizer Use Efficiency in rice by 30 %.
14.	Evaluation of chemical weed control methods in rice-fallow cotton ( <i>Gossypium hirsutum</i> L.) in the coastal region of	D. Latha 03-606-016 2003 to 2005	The weeds in rice-fallow cotton can be effectively and economically managed by pre-emergence application of alachlor 1 kg/ha + Hand Hoeing at 30 DAS.

Sl. No.	Title of the thesis	Name of the student and year	Salient findings
	Karaikal		

### Training Undergone

Sl. No.	Title of the training	Place	Period		Sponsor
			From	To	
1.	Integrated weed management technology – present status and future challenges	TNAU, Coimbatore	19.02.2004	10.03.2004	ICAR
2.	Recent Advances in Herbicide Use Research	IARI, New Delhi	24.07.2000	02.08.2000	ICAR
3.	Ancient and Medieval History of Indian Agriculture and its Relevance to Sustainable Agriculture in the 21 <sup>st</sup> Century	RAU, Udaipur	28.05.1999	17.06.1999	ICAR
4.	Recent Advances in Rice Production Technologies	TNAU, Coimbatore	03.08.1998	28.08.1998	ICAR

### List of best papers with NAAS ratings:

Authors name	Title	Year	Publishers name	NAAS ratings
Kiranmai, N.A., Mohan, R., <b>Poonguzhalan, R.</b> and Nadaradjan, S.	Performance of rice varieties, irrigation methods and foliar spray on growth attributes of aerobic rice.	2020	<i>Internatl. J. agric. Sci.</i> , <b>16</b> (2): 105-111	<b>4.82</b>
Kiranmai, N.A., Mohan, R., <b>Poonguzhalan, R.</b> and Nadaradjan, S.	Agronomic and physiological measures to enhance the yield and water productivity of aerobic rice in coastal deltaic region of Karaikal.	2020	<i>Internatl. J. agric. Sci.</i> , <b>16</b> (2): 247-252.	<b>4.82</b>
Ramya, K. and <b>Poonguzhalan, R.</b>	Physical and economic levels of nitrogen for aerobic rice under different establishment methods	2020	<i>Int. J. Curr. Microbiol. App. Sci.</i> , <b>9</b> (5): 985-992.	<b>5.38</b>
Deepa, R., Sankar, R., Omar Hattab, K. and <b>Poonguzhalan, R.</b>	Suitability of ground water for irrigation in Thirunallar Commune of Karaikal District, U.T. of Puducherry.	2017	<i>Trends in Biosciences</i> , <b>10</b> (5): 1257-1260	<b>3.94</b>
Saravanane, P., <b>Poonguzhalan, R.</b> and Chellamuthu, V.	Parthenium ( <i>Parthenium hysterophorus</i> L.) distribution and its bio-resource potential for rice production in Puducherry, India.	2012	<i>Pakistan Journal of Weed Science and Research</i> , <b>18</b> : 551-555	--

Authors name	Title	Year	Publishers name	NAAS ratings
Ayyadurai, P. and <b>Poonguzhalan, R.</b>	Critical period of crop-weed competition in zero-till cotton ( <i>Gossypium hirsutum</i> L.).	2010	<i>Green Farming</i> , <b>1</b> (5): 470-473.	<b>4.38</b>
Saravanane, P., <b>Poonguzhalan, R.</b> , Vijayakumar, S. and Pooja, K.,	Crop-weed competition in blackgram in coastal deltaic eco-system.	2020	<i>Indian Journal of Weed Science</i> , <b>52</b> (3):283-285	<b>5.17</b>
Pavithra, M. and <b>Poonguzhalan, R.</b>	Weed flora of aerobic rice and their effect on growth, yield and nutrient uptake of rice ( <i>Oryza sativa</i> ) in the coastal region of Karaikal, Puducherry, India	2018	<i>Journal of Applied and Natural Science</i> , <b>10</b> (1): 397-402.	<b>3.73</b>
Pavithra, M., <b>Poonguzhalan, R.</b> , Narayanan, AL. and Sundaravarathan, S.	Bispyribac sodium – Early post-emergence herbicide for weed control in aerobic rice ( <i>Oryza sativa</i> L.)	2017	<i>Agriculture Update</i> , <b>12</b> (1): 270-276	<b>4.39</b>
Umamaheswari, L. Chandrasekar, V., Swaminathan, N. and <b>Poonguzhalan, R.</b>	Technical efficiency of freshwater aquaculture farms in the Union Territory of Puducherry: frontier production function approach.	2013	<i>Indian Journal of Fisheries</i> , <b>60</b> (2): 93-98.	<b>6.28</b>
Narayanan, AL., Chellamuthu, V. and <b>Poonguzhalan, R.</b>	Performance of <i>Jatropha curcas</i> under lowland and upland of Karaikal in Union Territory of Puducherry.	2012	<i>Madras Agricultural Journal</i> , <b>99</b> (Special issue): 49.	<b>3.98</b>
John Daniel, P.S., <b>Poonguzhalan, R.</b> , Mohan, R. and Suburayalu, E.	Weed management for enhanced production of aerobic rice.	2012	<i>Indian Journal of Weed Science</i> , <b>44</b> (4) : 270–273.	<b>5.17</b>
Ayyadurai, P. and <b>Poonguzhalan, R.</b>	Critical period of crop-weed competition in zero-till cotton.	2011	<i>Indian Journal of Weed Science</i> , <b>43</b> (3&4) : 228–230.	<b>5.17</b>
Karunakaran, V., Rammohan, J., Chellamuthu, V. and <b>Poonguzhalan, R.</b>	Effect of integrated nutrient management on growth and yield of groundnut ( <i>Arachis hypogaea</i> L.) in coastal region of Karaikal.	2010	<i>Indian Journal of Agronomy</i> , <b>55</b> (2): 128-132.	<b>5.46</b>
Ayyadurai, P. and <b>Poonguzhalan, R.</b>	Effect of weed control on nutrient depletion by weeds and nutrient uptake by cotton in rice-fallow cotton.	2010	<i>Madras Agricultural Journal</i> , <b>97</b> (7-9) : 249 – 250.	<b>3.98</b>