



Dr Kevin Moore

2023 Farrer Memorial
Medal Winner

2023 Farrer Memorial Medal Recipient

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Dr Kevin Moore, a distinguished plant pathologist, has been honoured with the prestigious 2023 Farrer Memorial Medal. This accolade is a testament to his unwavering dedication and ground-breaking research on chickpeas, proudly impacting Australia's agricultural landscape.

Dr Moore's journey into the realm of plant pathology began over five decades ago when he joined the then NSW Department of Agriculture in 1966. His work has been pivotal in developing sustainable and effective disease management strategies, particularly for chickpeas, a vital legume crop for Australian farmers. His research has helped tackle *Ascochyta* blight, a significant threat to chickpea yields, by advancing resistant varieties and integrated disease management practices.

Beyond the laboratory, Dr Moore's commitment to education and extension services has empowered countless growers with the knowledge and tools to combat plant diseases. His efforts have not only enhanced crop resilience but have also contributed to the economic stability and growth of Australia's agricultural sector.

The Farrer Memorial Medal recognizes Dr Kevin Moore's extraordinary contributions to chickpea research and his enduring legacy of innovation, education, and support for the farming community. His work embodies the spirit of scientific excellence and collaboration, ensuring a brighter, more sustainable future for agriculture in Australia.



Dr Moore's work on **Ascochyta blight**

Dr Moore's work on Ascochyta blight in chickpeas stand as a cornerstone of his remarkable career and has had a substantial impact on chickpea cultivation in Australia.

Ascochyta blight is caused by the fungus *Ascochyta rabiei* and is devastating for chickpeas. It leads to significant yield losses and can make chickpea cultivation economically unviable if not properly managed.

Dr Moore's work on Ascochyta blight includes:

Identification and Management

Dr Moore was instrumental in identifying outbreaks of Ascochyta blight and understanding its epidemiology. His research helped pinpoint the conditions under which the fungus thrives, aiding in early detection and timely intervention.

He developed integrated disease management strategies that combine various agricultural practices, such as crop rotation, residue management, and the use of fungicides, to effectively control the spread of Ascochyta blight.

Breeding Resistant Varieties

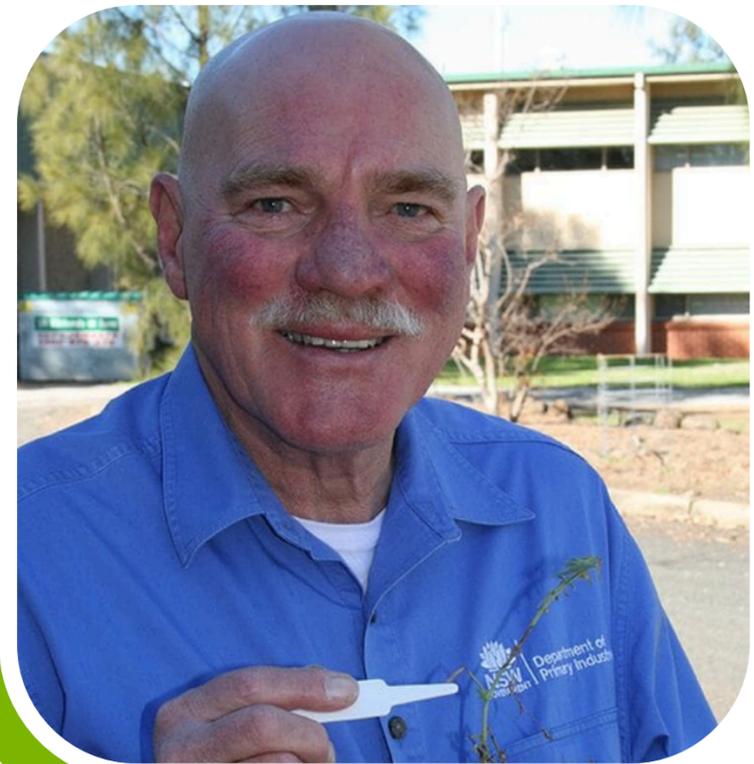
Dr Moore closely collaborated with plant breeders to develop chickpea varieties resistant to Ascochyta blight. These efforts have led to the release of several resistant cultivars, offering farmers more resilient options and reducing dependency on chemical controls.

He played a pivotal role in conducting extensive field trials to evaluate the performance of these resistant varieties under different environmental conditions, ensuring their effectiveness and adaptability.

Extension Services and Education

Dr Moore was a strong advocate for farmer education. He regularly conducted workshops, field day events, and seminars to disseminate the latest research findings and practical advice on managing Ascochyta blight.

He has authored numerous publications, guidelines, and extension materials, providing comprehensive information on disease identification, management strategies, and best practices for chickpea cultivation.



Support and Advice to Growers

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Dr Moore's research on **Ascochyta blight**



Dr Moore's research on Ascochyta blight in chickpeas was comprehensive and multi-dimensional, targeting the problem from several critical angles to develop effective control strategies. His approach included

Pathogen Surveillance and Monitoring

- **Epidemiological Studies** - Dr Moore conducted detailed studies on the life cycle of *Ascochyta rabiei*, examining how the pathogen spreads and survives across different environmental conditions. Understanding its biology was crucial for timing interventions effectively.
- **Field Surveys** - Regular field surveys helped track the prevalence and distribution of *Ascochyta* blight. These surveys identified hotspots and provided data on the disease's geographical spread, aiding targeted management efforts.

Host Resistance and Breeding

- **Resistance Screening** - Dr Moore collaborated with plant breeding programs to identify chickpea varieties with natural resistance to *Ascochyta rabiei*. These screenings involved testing various cultivars under infection pressures to determine their resistance levels.
- **Gateway to Resistant Cultivars** - His efforts significantly contributed to the development of new chickpea cultivars that carried genetic resistance against *Ascochyta* blight. Varieties such as PBA HatTrick, PBA Seamer, and others were direct results of these collaborative efforts.

Integrated Disease Management

- **Crop Rotation and Residue Management** - Dr Moore recommended specific crop rotation patterns to disrupt the life cycle of the pathogen. By reducing the residue of chickpea plants, which can harbor the pathogen, he reduced the disease's inoculum levels.
- **Fungicide Programs** - He tested and recommended fungicide treatments that were not only effective but also minimized the risk of resistance development. He provided guidelines on the timing and frequency of applications for optimal control.
- **Cultural Practices** - Adjustments to cultural practices such as planting density, timing, and irrigation management were advocated to create less favorable conditions for the pathogen's proliferation.

Education and Extension Work

- **Workshops and Demonstrations** - Dr Moore organized numerous workshops and field demonstrations to educate farmers about *Ascochyta* blight management. These hands-on sessions were crucial for transferring research findings into practical field applications.
- **Information Dissemination** - He authored user-friendly guides, bulletins, and online resources that provided step-by-step instructions for disease identification and management, ensuring farmers had accessible and reliable information.

Dr Moore's research on **Ascochyta blight** continued



Research Publications and Collaboration

Scientific Literature - Dr Moore published extensively in industry peer-reviewed journals, providing a scientific basis for the management strategies. His work helped peers and successors to build on a robust foundation of knowledge.

Research Collaborations - His work was highly collaborative, often partnering with other researchers, agricultural institutions, and international bodies to share findings and refine strategies. This collaborative approach amplified the impact of his research globally.

Policy and Advisory Roles

Influencing Policy - Dr Moore's research findings often informed agricultural policies and recommendations from governmental and industry bodies. His input helped shape funding priorities and strategies for battling plant diseases.

Advisory Committees - Serving on various advisory panels, Dr Moore provided expertise that guided national and regional efforts to manage Ascochyta blight, aligning research priorities with the needs of the agricultural sector.

Dr Kevin Moore's multi-pronged approach towards Ascochyta blight in chickpeas exemplifies a successful blend of scientific research, practical application, and farmer engagement, which collectively mitigated the impacts of this disease on Australian chickpea production.