

## Obituary Wang Yanrong



We are sad to report the death of Dr Wang Yanrong, an internationally respected forage seed scientist, who died in Beijing on 12 January 2023. She was 66 years old, just short of planned retirement.

Dr Wang was born in Da'an County, Jilin Province, NE China in 1956. She was educated at local primary, middle and high schools, after which she became a teacher. In 1977, she was accepted to attend Gansu Agricultural University in Lanzhou where she graduated as a pasture scientist (BAGSc, 1982). There she came under the influence of renowned Professor Ren Jizhou, who established the Gansu Grassland Ecological Research Institute (GGERI) in 1981 and recruited Yanrong while she was an undergraduate honours student. She was among the first researchers appointed.

In 1982/83 Yanrong spent 3–4 months learning English language at Beijing No. 2 Foreign Language University. During the 1980s, on leave from GGERI she studied at the Seed Technology Centre, Massey University, New Zealand where she was fortunate to work with two eminent seed scientists, Professors John Hampton and Murray Hill. She obtained a Certificate in Seed Technology from her brief first visit (1984/85). She returned for a longer visit (1987–1990) when she accompanied her husband Nan ZhiBiao, who is one of the leading grassland scientists in China, when he was doing his graduate studies there. She graduated with

a Masters degree (1st Class Honours) in Agricultural Science. Later in her career, Yanrong was awarded a PhD in seed physiology from Nanjing Agricultural University in 2003 for her research on the measurement and control of membrane damage during seed deterioration.

In 1986, at the age of 30 and still working within GGERI, Yanrong was appointed as Director of the Herbage Seed Testing Centre of the Ministry of Agriculture in Lanzhou, responsible for forage seed quality assessment throughout western China. She held that position for more than 30 years, leading a staff of 15 researchers and training dozens of seed analysts. While her personal research extended to grassland ecology, forage germplasm assessment, domestication of native forage plants (especially from arid regions of China) and assessment of turfgrasses, her main focus was on seed and seedling physiology, seed quality, seed production and seed storage. Late in her career, her postgraduate students included molecular techniques in their joint research.

Most of her research focussed on temperate forage species, especially alfalfa (lucerne) seed technology. This research supported the development of an alfalfa seed industry in the Hexi Corridor of Gansu, an arid environment dotted with oases originating in rivers and streams from the Qilian Mountains. In 2001 she became a Chinese co-leader of an ACIAR-funded project (2001–2006) on the development of alfalfa adapted to adverse environments in China and Australia. Research in that project showed that a simple change to the irrigation regime used for alfalfa seed production in the Hexi Corridor could increase seed yields by 40 %. Five new alfalfa cultivars emerged from this project, including one produced by GGERI.

Towards the end of the ACIAR project Yanrong worked more on tropical forage species and spent two years (2004–2006) on a post-doctoral appointment at the International Livestock Research Institute (ILRI) in Addis Ababa. There she joined the Forage Diversity Project, leading a team of 7 technicians working on developing improved methods for seed germination of tropical legumes and carrying out research on the effects of temperature and dormancy breaking treatments to improve germination of *Vigna* and *Sesbania*. This research was summarised in several publications. She also jointly supervised a PhD student from LZU working on morphological and nutritional diversity of *Lathyrus* at ILRI to identify accessions with potential for use in dryland areas of Gansu. Later still, towards the end of her career she supervised some research on treatment of



*Yanrong and Zhibiao outside GGERI, Lanzhou*

*Leucaena leucocephala* seeds collected from southern China.

In her 40-year research career Yanrong published more than 220 refereed scientific papers. At first, most of her publications were in Chinese language journals, although she did also publish in English. In 2002 when GGERI was merged with Lanzhou University (LZU) to establish the College of Pastoral Agriculture Science and Technology, Yanrong became a Professor and her access to students greatly increased her research and publication opportunities. In addition to about 60 postgraduate students, she had research collaborators in many countries. She travelled widely, undertaking long periods of research in Ethiopia (ILRI), England (University of London), and Denmark (National Seed Testing Station), in addition to her years in New Zealand.

Yanrong was active in several international scientific organisations. She attended numerous international conferences, raising awareness of research being conducted in China and extending her personal network. For many years China was not a member country of the International Seed Testing Association (ISTA), so Yanrong was not able to hold office. However, she was a personal member of ISTA and she was an active member of their Vigour and Germination Committees. She attended ISTA Congresses in Argentina, Denmark, France, Turkey and New Zealand. Yanrong was also a long-time member of the Executive Committee of the International Herbage Seeds Group (IHSG) and served as coordinator for China and Asia. Her influence and personal reputation encouraged IHSG to hold its 8th International Herbage Seeds Conference at LZU in 2015. It attracted 160 delegates from 14 countries. Yanrong chaired the local organising committee, co-

edited the proceedings, presented the opening plenary paper on China's herbage seed industry and co-authored 14 papers. It was perhaps the highlight of her career. John Hampton, who attended the conference, said recently that the 5-day post-conference trip along the Hexi Corridor was remarkable for the extent to which Yanrong's research and contribution to the seed industry was everywhere acknowledged. Yanrong attended two International Grassland Congresses. At the 21st IGC in China in 2008 she presented some of the research on tropical *Vigna* species and *Lathyrus* diversity from her research at ILRI. In 2013 she was an invited speaker at the 22nd IGC in Sydney, Australia, where she reviewed the management of seed dormancy in forage grasses and legumes. She also co-chaired a session on turfgrasses.

Yanrong received several awards within China for her research achievements. In 1992 she became Vice-President of the Chinese Society for Forage Seed Science and Technology. Although the herbage seed industry in China is still at an early stage of development, its progress owes much to her lifetime of scientific support. Her legacy includes nine new cultivated plant varieties, a comprehensive seed testing protocol for forage species and a generation of trained researchers and technicians. Commenting on her career, Professor Ren described her as a leading scientist, always optimistic. He said her death was a great loss for herbage seed science and technology in China.

Yanrong is survived by her husband, Nan ZhiBiao, daughter Fang and husband Song Fangwei and granddaughter Shun er.

Bob Clements  
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