

Yuexia Wang

Department of Plant Sciences
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RESEARCH INTERESTS

Plant breeding, particularly in turfgrasses and vegetables, for stress resistances, higher yield and better quality, using conventional and modern biotechnology

EDUCATION

Ph.D. candidate: Dept of Plant Sciences, University of Rhode Island, Kingston, RI 02881.

Sept. 1999-present.

GPA: 3.91/4.00.

Major: Plant Molecular Genetics and Breeding.

Dissertation: Genetic Transformation studies of Bentgrasses.

Major Professors: Bridget A. Ruemmele, Albert P. Kausch and Marian R. Goldsmith.

Enrolled in Ph.D. program in Cytogenetics Institute, Dept. of Agronomy, Nanjing Agricultural University, Nanjing, Jiangsu, 210095, P. R. China.

Feb.1993-Feb.1996.

GPA: 89.2/100.

Major: Plant Genetics and Breeding.

Dissertation: Cytogenetic Study on Origin and Evolution of Chinese Narcissus.

Major Professor: Dajun Liu.

M.S. Dept. of Horticulture, Nanjing Agricultural University, Nanjing, Jiangsu, 210095, P. R. China.

Sept.1982-July 1985.

GPA: 85.8/100.

Major: Vegetable Breeding.

Thesis: Heterosis and Combining Ability of Chinese Cabbage

Major Professor: Souchun Cao.

B.S. Dept. of Horticulture, Gansu Agricultural University, Lanzhou, Gansu, 730070, P. R. China.

Sept.1978-July 1982.

GPA: 90.1/100.

Major: Vegetable and Fruit Science.

Thesis: The Effects of Different Cultural Materials on Yield and Quality of Cucumber.

Major Professor: Mingjun Luo.

EMPLOYMENT

Graduate Research Assistant

Dept. of Plant Sciences, University of Rhode Island, Kingston, RI 02881

Sept. 1999-present.

Genetic transformation of bentgrasses using microprojectile bombardment for disease resistance, herbicide resistance and male sterility

Assistant Professor

Dept. of Horticulture, Nanjing Agricultural University, Nanjing, 210095, P.R. China.

Oct. 1987-Feb. 1996.

Research

- <1> Cytogenetic study on origin and evolution in Chinese and foreign *Narcissus*
Principal investigator
- <2> Introduction and culture of lily to the East from Northwest of China
Principal investigator
- <3> Breeding of radish
Major participant
Responsible for field experiment
- <4> Breeding of Chinese cabbage
Major participant
Responsible for breeding male sterile AB line and complete male sterile line, crossing breeding and studying on heterosis.

Teaching

- <1> Research Method of Vegetable Science.
Senior Level
- <2> Vegetable Breeding I: Breeding Principles and Methods.
Senior Level
- <3> Vegetable Breeding II: Breeding of Major Vegetable Crops.
Senior Level
- <4> Horticultural Products for Processing I: Vegetable Products.
Junior Level
- <5> Field Practice for Graduation in Vegetable Science.
Senior Level

Teaching and Research Assistant

Dept. of Horticulture, Nanjing Agricultural University, Nanjing, 210095, P. R. China.

Aug. 1985-Sept. 1987.

Research:

Chinese cabbage breeding

Major participant

Responsible for field and laboratory experiments, writing reports.

Teaching:

- <1> Vegetable Breeding I: Breeding Principles and Methods.
- <2> Vegetable Breeding II: Breeding of Major Vegetable Crops.

AWARDS

<1> RI Turfgrass Research Fellowship, Rhode Island Golf Course Superintendents Association, 2002.

<2> Outstanding Graduate Student Presentation Award, Northeastern Branch of American Society of Agronomy and Soil Science Society of American, 2001.

<3> Dr. Noel Jackson Scholarship for outstanding accomplishments in the field of turfgrass management, Rhode Island Turf Foundation, 2000.

PUBLICATIONS

- Wang, Y., B.A. Ruummele, J.M. Chandlee, W.M. Sullivan, J.E. Knapp and A.P. Kausch. 2002. Embryogenic callus induction and plant regeneration media for bentgrass and annual bluegrass. *In Vitro Cellular & Development Biology, Plant* (accepted).
- Liu, D., Y. Wang, and S. Wang. 1996. Cytogenetics study on origin and evolution of Chinese *Narcissus*. *Abstracts of Scientific Research in China* 168.
- Wang, Y. and S. Wang, D. Liu. 1996. The Giemsa C-banding patterns of mini-daffodil (*Narcissus bulbocodium* L.) chromosomes. *Acta Horticulturae Sinica* 23(3):274-276.
- Wang, Y. 1995, Introduction and propagation of laizhou lily (*L. davidii* var. *willmottiae*). *Jiangsu Agricultural Science* 2:1-3.
- Wang, Y. and S. Cao, 1987, Selecting and breeding of complete male sterile lines in non-heading Chinese cabbage. *Genetics Study (Jiangsu)*.
- Wang, Y. and S. Cao, 1986, A Preliminary study on heterosis and combining ability in Pakchoi, (Chinese cabbage). *Journal of Nanjing Agricultural University* 2:31-41.
- Wang, Y. and S. Cao, 1985, Heterosis and combining ability of non-heading Chinese cabbage. *Scientific Reports of Horticulture Department*.
- Wang, Y. 1985, Heterosis and combining ability of Chinese cabbage. M.S. Thesis, Nanjing Agricultural University.
- Wang, Y. 1982, The Effects of different cultural materials on yield and quality of cucumber. B.S. Thesis, Gansu Agricultural University.

Abstracts:

Wang, Y., M. Browning, B. A. Ruummele, J.M. Chandlee, A.P. Kausch, and N. Jackson. 2002. Efficacy of glufosinate in preventing and controlling fungal diseases in glufosinate-resistant transgenic creeping and velvet bentgrasses. In Annual Meeting of Northeast Section of American Society of Plant Biologists, May 3-4, 2002, Wellesley College, Wellesley, MA.

Jiang, Z., Y. Wang, J.T. Bushoven, W.M. Sullivan, B.A. Ruummele, and R.J. Hull. 2001. Nitrate

- assimilation potentials of transgenic and non-transgenic creeping and velvet bentgrasses. In Annual Meeting Abstracts (CD-ROM) of American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Oct. 21-25, 2001, Charlotte, NC.
- Ruemmele, B.A., G. Fales, E. Coghlin, K. Aspri, J. Messina, J. Digiulio, and Y. Wang. 2001. Velvet bentgrass growth as affected by varied management practices. In Annual Meeting Abstracts (CD-ROM) of American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Oct. 21-25, 2001, Charlotte, NC.
- Wang, Y., A.P. Kausch, J.M. Chandlee, and B.A. Ruemmele. 2001. Transgenic velvet bentgrass plants produced by microprojectile bombardment. In Annual Meeting Abstracts (CD-ROM) of American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Oct. 21-25, 2001, Charlotte, NC.
- Longo, C., Q. Hu, H. Luo, K. Nelson, A.P. Kausch, Y. Wang, C. Basu, and J.M. Chandlee. 2001. Reliable Transformation of Grasses. P. 164. In Final Program of The Quadrennial Joint Annual Meetings of the American Society of Plant Biologists and the Canadian Society of Plant Physiologists, July 21-25, 2001, Providence, RI.
- Wang, Y., B.A. Ruemmele, J.M. Chandlee, W.M. Sullivan, and A.P. Kausch. 2001. Embryogenic callus induction and plant regeneration in bentgrasses and annual bluegrass. P.182. In Final Program of The Quadrennial Joint Annual Meetings of the American Society of Plant Biologists and the Canadian Society of Plant Physiologists, July 21-25, 2001, Providence, RI.
- Wang, Y., J.M. Chandlee, A.P. Kausch and B.A. Ruemmele. 2001. Herbicide-resistant transgenic creeping bentgrass produced by particle bombardment. P.2. In Annual Meeting Abstracts of Northeastern Branch of American Society of Agronomy and Soil Science Society of America, June 24-27, 2001, University of Rhode Island, W. Alton Jones Campus, West Greenwich, RI.
- Basu, C., J. Chandlee, A. Kausch, J. Bushoven, Y. Wang, K. Pham, and S. Pennington. 2000. Optimizing the method and parameters for gene transfer in turfgrass for trait enhancement. In Book of Abstracts of 3rd International Crop Science Congress 2000 (ICSC), Aug. 17-22, 2000, CCH-Congress Centrum Hamburg, Germany.
- Wang, Y., C. Basu, Z. Jiang, and W.M. Sullivan. 2000. Characterization of nitrate uptake by Kentucky bluegrass at the whole-plant and organ Levels. HortScience 35: 829.

Presentations:

Efficacy of glufosinate in preventing and controlling fungal diseases in glufosinate-resistant transgenic creeping and velvet bentgrasses. Poster presentation at annual meeting of Northeast Section of American Society of Plant Biologists, May 3-4, 2002, Wellesley College, Wellesley, MA.

Characterization of nitrate uptake by Kentucky bluegrass at the whole-plant and organ Levels. Poster presentation at annual meeting of American Society for Horticultural Science- Northeast Region, Jan. 5-6, 2000, Baltimore, Md.

Herbicide-resistant transgenic creeping bentgrass produced by particle bombardment. Oral

presentation at Annual Meeting of Northeastern Branch of American Society of Agronomy and Soil Science Society of America, June 24-27, 2001, University of Rhode Island, W. Alton Jones Campus, West Greenwich, RI. (Received Outstanding Graduate Student Presentation Award).

Transgenic velvet bentgrass plants produced by microprojectile bombardment. Poster presentation at Annual Meeting of American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Oct. 21-25, 2001, Charlotte, NC.