RESUME

NAME: **QIANG Sheng** SEX: Male Title: Doctor, Professor of Botany & Weed Science

PERSONAL

Born: June 20, 1960, Fanchang County, Anhui Province, P. R. of China
Address: College of Life Science, Nanjing Agricultural University, Nanjing, 210095, PR China
Phone: +86-25-84395117(o) 86-25-84395470 FAX: +86-25-84431492
E-mail address: wrl@njau.edu.cn; sqiang_weed@sina.com

EDUCATION

1996-1998: Nanjing Agricultural University, Nanjing, Ph.D., in Plant Science(Weed Science)

Thesis topic: The potential of *Alternria alternata* as a mycoherbicide for biological control of Crofton weed(*Eupatorium adenophorum*).

Supervisor: Li Yanghan

1985-1988: Nanjing Agricultural University, Nanjing. M.S. in Botany(Weed Science)

Thesis topic: Investigation on the weed flora and ecology in the field of the farming areas along both banks of the Changjiang River in Anhui Province.

Supervisor: Li Yanghan

1978-1982: Anhui Normal University, Wuhu City. B.S. in Biology

Thesis for BS: Extract and analysis of chemical components of drug sweetflag (*Acorus gramineus*).

1971-1976: Xingling High School, Fanchang County, Anhui Province

JOB EXPERIENCE

1999-present: **Professor** and **Head** of Department of Plant Science, **Director** of Weed Research Laboratory. Nanjing Agricultural University. During August 2003- January 2004, Senior visiting scientist at Alberta Research Council, Alberta, Canada

1993-1998: Associate Professor and Director of Weed Science and Botany, Department of Agronomy, Nanjing Agricultural University(during the period of 1988 to 1992, Lecturer in Botany and Weed Science).

Responsibilities in research(60%) and teaching(40%) of **Weed Science and Botany**.

Research areas:

1. Classification, identification and quarantine of Johnson grass
2. Invasion mechanisms of invasive alien plants and their biosafety assessment
3. Weed biology and ecology and its sustainable management
4. Biosafety assessment of transgenic crops
5. Development of bioherbicide technology
6. Chemical herbicide application technique and herbicide-resistance

Research programs:

7. Hi-Tech Research Program (863 Program)-Key Project. Development and Study of Bioherbicide (Head of Res. Team, funded by the Ministry of Science and Technology, 2006- 2010, 2006AA10A214）
8. The State Key Basic Research(973 Program). Molecular ecology of invasion mechanisms of Crofton weed (*Eupatorium adenophorum*). (Head of Res. Team, funded by the Ministry of Science and Technology, 2004 -2008, 2002CB111402-3-6)
9. Study and extension of integrated management of invasive alien weed goldernrod (*Solidago canadensis*) in Jiangsu Province. (Head of Res. Team, funded by Jiangsu Provincial Commission of Science and Technology, BE2005349, 2005-2007)
10. Establishment of standard of plant quarantine for imported weeds. (Adjunct Head of Res. Team, funded by Administration of Animal and Plant Quarantine of the P.R. China, 2004-2007)
11. On examination and monitoring of Glyphosate-resistant weed population in China. (Head of Res. Team, funded by Sygenta Protection Corp. China, 2003-2006)
12. Establishment of evaluation and management system for environment biosafety assessment of transgenic herbicide-resistant and insect-resistant crops in China. (Head of Res. Team for sub-program, funded by the Ministry of Science and Technology, 2003BA614A-07-04-03, 2004-2006)
13. On the molecular mechanism of exotic weed *Eupatorium adenophorum* adapting to environments.(Head of Res. Team for sub-program, funded by the National Basic Research and Development Program,973 program, 2002CB111400, 2003-2007)
14. Study on the system of evaluation of the risk for introduction plants to change into exotic weeds. (Head of Res. Team,

funded by the National Natural Science of Foundation, 30170619, 2002-2004)

15. The dynamics of weed community complex and model of its sustainable management in the fields of the rice-wheat cropping system. (Head of Res. Team, funded by the National Natural Science of Foundation. 30170164, 2002-2004)
16. Development of a mixture of bioherbicide product for biological control of the worst weeds in China (Head of Res. Team, funded by the Hi-Tech Research and Development Program of China, 2001AA246012, 2002-2004, continue 2004-2006)
17. Safety assessment of transgenic soybean in China. (Head of Res. Team, funded by Mosanto Company, 2002-2004)
18. Mechanism of action on weeds by Alacide, a bioherbicide. (Head of Res. Team, funded by Science and Technology Department of Jiangsu Province, BK2001066, 2002-2004)
19. Application Technique of Pyanchor and LGC-42153 in China ((Head of Res. Team, funded by LG Chemical Investment, Korea(2002).
20. Evaluation of the risk of invasion organisms and their management. (Head of Res. Team, funded by the Ministry of Science and Technology, 2001BA611B-06-1-5, 2001-2003)
21. Identification and classification of Silk sorghum. (Head of Res. Team, funded by Administration of Animal and Plant Quarantine of the P.R. China, 2001-2003)
22. On potential of commercializing several bioherbides for biological control of weeds. (Head of Res. Team, funded by Nantong Jiangshan Agrochemical & Chemicals Limited Liability Company, 2000-2003)
23. Potential of commercializing a bioherbicide for *Veronica* spp. and *Galium aparine*. (Head of Res. Team, funded by Science and Technology Department of Jiangsu Province, BS2000728,2001-2003)
24. Application and extension of chemical control of weeds in turf in Jiangsu Province. (Head of Res. Team, funded by Science and Technology Department of Jiangsu Province , BL2000034, 2000-2002)
25. Evaluation of the safety of genetically modified crops(GMC) resistant to herbicides. (Head of Res. Team, funded by the National Natural Science of Foundation, E200102)(2001-2003)
26. The action mechanism and bioassay of efficacy of new chemicals to weeds. (Head of Res. Team, funded by the National Natural Science of Foundation)(1999-2001)
27. The mixture of butachlor with other herbicides for herbicidal control of the weed in the wheat fields. (Head of Res. Team, funded by Nantong Jiangshan Pesticide Chemical Company, China)(1997-2000).
28. The potential of development of mycoherbicide using *Alternaria alternata* for biological control of crofton weed(*Eupatorium adenophorum*). (Head of Res. Team, funded by the Commission of Education, China)(1997-1999).
29. Development of mycoherbicide for biocontrol of some of the worst weeds in China, concentrated in the production, formulation and evaluation of mycoherbicides for dodder, crofton weed and barnyard grass. (Head of Res. Team, funded by the Ministry of Agriculture, China)(1995-2000).
30. Occurrence, distribution of weed communities and control of weed in the cotton field of Jiangsu Province. Centered on revealing the pattern of distribution and succession of weed communities and selecting suitable herbicides in cotton weed control. (Head of Res. Team, funded by Jiangsu Provincial Commission of Science and Technology)(1996-2000).
31. Technique of application of herbicides to the cultivation of rice by direct seeding. Focused on selecting the mixture of oxadiazon and butachlor.(Head, funded by Shanghai Municipal Commission of Science and Technology)(1990-1992).
32. Bioactivity of extract of sweetflag(*Acorus gramineus*) to weeds. Focused on affection of rice and main paddy weed growth and action mechanism. (Head, funded by Sci. Res. Foundation of Nanjing Agricultural University)(1989-1994).
33. Weed communities and infestation of the field crops in Anhui Province.(Head, funded by Anhui Provincial Commission of Science and Technology)(1989-1993).
34. Quantitative analysis of weed communities in China. I have been developing a quantitative analysis method specialized in weed communities, which data collected by visual scoring the level of weed infestation to crops in seven scales are multistatistically analyzed.(Head, funded by Anhui Provincial Commission of Science and Technology, and head(Li, Yanghan) funded by the Natural Science Foundation of China)(1985-1996).
35. Weed flora and distribution in China.(Head: Li, Yanghan, funded by the Natural Science Foundation of China). (1985-1992)

Teaching

I teach two undergraduate courses in: Botany and Weed science, and two graduate level courses in: Advanced weed science and Plant taxonomy.

Graduate Students completed: PhD: 8 MSc: 22

I am supervising 19 graduate students: 9 for master and 10 for doctor degree with my research team.

REFEREED SELECTED PUBLICATIONS:

Selected publications related to Johnson grass:

1. Zhang Qiang, Lin Jin-cheng, Qiang Sheng*. Analysis of the importance of quarantining based on the port checking out

ratio for Johnson Grass (*Sorghum halepense*). Journal of Anhui Agricultural Sciences. 2004 ,32(3) :448 – 451

2. Wu Hairong Qiang Sheng*. Biological characteristics of Johnsongrass (*Sorghum halepense*). Weed Science, 2004, 78（1）：52～54
3. SUN Jian-yun , QIAN G Sheng , DIAO Cai-hua , YIN Lian-ping. Study on Anatomical Characteristics of Vegetative Organs of Exotic Plant “Silk Sorghum”. Jiangsu Journal of Agricultural Science. 2003 ,19(3) :178～181
4. SUN Jian-yun , QIAN G Sheng , DIAO Cai-hua , YIN Lian-ping. Comparative observation of Silk Sorghum and Quarantine Weed Johnsongrass (*Sorghum halepense*) through ESM. Plant Quarantine, 2003, 17(2):77-79
5. SUN Jian-yun , QIAN G Sheng , DIAO Cai - hua , YIN Lian-ping. A Study on Comparative Anatomy of Silk Sorghum and Quarantine Weed Johnsongrass (sorghum halepense). Acta Agriculturae Universitatis Jiangxiensis. 2002, 24 (6):840-846
6. **Qiang Sheng*** and Cao Xuezhang, Harmfulness of exotic weeds in China and the strategies for their management. J. of Biodiversity. 2001, 9（2）:188-193. (in Chinese with English abstract).
7. Xu Haigen, Qiang Sheng(chief editor): 2004. The list of exotic invasive organisms in China. Beijing: Chinese Environment Science Press.
8. Li, Yanghan(chief editor), Sheng Qiang(associate editor). 1998. Weed Flora of China. Beijing: Chinese Agric. Publishing House. 1635pages.(in Chin.).
9. Qiang, Sheng(chief editor). 2001, Weed Science. Beijing: Chinese Agric. Publishing House. (textbook) (in Chin.).
10. Qiang Sheng. A review of species, source and invasion of exotic weeds in China. In: Proceedings of the 20th Asian-Pacific Weed Science Society Conference. 7-11 November, 2005. Ho Chi Minh City, Vietnam: Agricultural Publishing House. 2005, p143-150.

Other selected academic papers

11. *Ma L*, Qiang S*. Identification and classification of cut-flower “Huang-ying-hua” using DNA marker techniques. Acta Phytotaxon Sinica (SCI). 2007, 45(4):497-574
12. Chen SG, Dai XB, Xu XM, Yang CL, Qiang S*. Identification of tenuazonic acid as a novel type of natural photosyste m II inhibitor binding in QB-site of Chlamydomonas reinhardtii. BBA-Bioenergetics (SCI), 2007, 1767 ： 306-318 doi:10.1016/j.bbabio.
13. **Qiang S*** ，Zhu YZ, Summerell B A, Li Y H. Mycelium of *Alternaria alternata* as a potential biological control agent for *Eupatorium adenophorum*. Biocontrol Science & Technology(SCI), 2006, 16(7)：16（7）：653-668.
14. Xu Haigen , **Qiang Sheng,** Han Zhengmin, Guo Jianying, Huang Zongguo, Sun Hongying, He Shunping, Ding Hui, Wu Hairong and Wan Fanghao. The status and causes of alien species invasion in China. Biodiversity and Conservation（SCI）, 2006, 15(9): 2893-2904
15. Chao-He Huangfu, Xiao-Ling Song, Sheng Qiang*, Hong-Jun Zhang. Response of wild *Brassica juncea* populations to glyphosate. Pest Management Science（SCI）,, 2007,63, (11) DOI: 10.1002/ps.1436
16. Wang F, Peng Zhang, **Qiang S***, Xu LL*. Interaction of plant epicuticular waxes and extracellular esterases of Curvularia eragrostidis during infection of Digitaria sanguinalis and Festuca arundinacea by the fungus. International Journal Of Molecular Sciences（SCI）, 2006, 7 (9): 346-357
17. Xu* Haigen, Ding Hui, Li,Mingyan **Qiang Sheng**, Guo Jianying, Han Zhengmin, Huang Zongguo, Sun Hongying, He Shunping, Wu Hairong & Wan Fanghao. The distribution and economic losses of alien species invasion to China. Biological Invasions (SCI) 2006, 8:1495–1500
18. Qiang Sheng. Multivariate analysis, description, and ecological interpretation of weed vegetation in the summer crop fields of Anhui province, China. Journal of Integrative Plant Biology(SCI), 2005, 47(9): 1193-1210
19. Ji Mengcheng, Enroth Johannes, Qiang Sheng. *Neckera noguchiana* (Neckeraceae, Bryopsida), a new species from Nepal. Annales Botanici Fennici(SCI), 2005,42:391-393.
20. Chen Shiguo Dai Xinbing Qiang Sheng*. Effect of Toxin from *Alternaria alternata* (Fr.) Keissler on electron transfer activity of chloroplast in *Eupatorium adenophorum* Spreng. Plant Pathology(SCI), 2005, 54(5):671-677
21. He Junying, Qiang Sheng*. Study of flora organ differentiation and embryology in *Eupatorium adenophorum*-an exotic plant. Chinese Bulletin of Botany, 2005,22(4):419-425.
22. FU Jian-Guo, QIANG Sheng*, ZHU Yun-Zhi. Protoplast preparation and mutation for pathogenicity of *Alternaria alternata* (fr.) Keissler by restriction enzyme mediated integration (remi). Mycosystem, 2005，24（3）: 407-413
23. Duan Hui, Qiang Sheng*, Su Xiuhong, Wu Hairong, Zhu Yunzhi, Liu Linli. Genetic diversity of *Eupatorium adenophorum* determined by AFLP marker. Acta Ecologia Sinica, 2005, 25（8）: 2109-2114
24. HE Junying, QIANG Sheng*, SONG Xiaoling JIN Haiyu. Comparison of the Stem and Leaf Morphological Structures of 18 Communities of the alien Plant *Eupatorium adenophorum*. Acta Botanica Boreali.-Occidentalia Sinica, 2005, 25(6):1089—1095
25. WEI Shouhui1,QIANG Sheng*, MA Bo, WEI Jiguang, CHEN Jianwei, WU Jianqiang, XIE Tongzhou, SHEN Xiaokun. Control effects of rice duck farming and other weed management strategies on weed communities in paddy fields. Chinese Journal of Applied Ecology, 2005,16(6)：1067 ~ 1071
26. ZHU Jingjing, QIANG Sheng*. Effect of meteorological factors on emergence of winter turf weeds in Nanjing Acta

Prataculturae Sinica, 2005,14,(2):33-37
27. ZHU Jingjing, QIANG Sheng*. Summer and Autumn Meteorological Effects on the Emergence of Turf Weeds in the Nanjing Area. Acta Agrestia Sinica, 2005, 13（2）: 97-101
28. SU Xiuhong, SONG Xiaoling, QIANG Sheng* & DUAN Hui response of seed germination of different populations of *Eupatorium adenophorum* Spreng. to drought stress. Chinese Journal of Applied Environmental Biology, 2005, 11(3): 308 ~ 311
29. Wang Kaijin, Qiang Sheng*, Quantitative analysis of distribution of weed communities in wheat fields in the south of Jiangsu Province. Journal of Biomathematics, 2005, 20(1):107-114
30. LIN Jincheng, QIANG Sheng*, WU Hai rong. Effect of *Alternanthera philoxeroides*, an invasive exotic weed, on plant biodiversity. Rural Eco-Environment, 2005,21(2):28-32
31. Zhu Yunzhi, **Qiang Sheng***. Isolation, pathogenicity and safety of *Curvularia eragrostidis* isolate QZ-2000 as a bioherbicide agent for large crabgrass (*Digitaria sanguinalis*). Biocontrol Science and Technology（SCI）, 2004, 14（8）:769-782. (in English)
32. Liu Lingli, **Qiang Sheng***,Song Xiaoling, Hu Jinliang. Observation of the sexual incompatibility between wild Rice（*Oryza officinalis* Wall）and transgenic rice(*Oryza sativa* L.) by fluorescence microscope. Scientia Agricultura Sinica. 2004，37（4）: 469-472. (in Chinese with English abstract)
33. DAI Xin-bin, CHENG Shi-guo, **QIANG Sheng***,AN Chuan-fu, ZHANG Rong-xian. Effect of Toxin from *Alternaria alternata* (Fr.) Keissler on leaf photosynthesis of *Eupatorium adenophorum* Spreng. Acta Phytopathologica Sinica，2004. 34（1）: 55-60. (in English)
34. Liu Lingli, **Qiang Sheng***, Song Xiaoling. The study of the compatibilities between transgenic herbicide-resistant rice and wild relatives by using autoradiography of pollen traced with 32P. Nuclear Techniques(EI). 2004, 27(8):616-619. (in Chinese with English abstract)
35. Song Xiaoling, **Qiang Sheng***. Assessment on the possibility of gene flow of herbicide-resistant transgenic rice from the pollen vitality of *Echinochloa crusgalli* (L.) Beauv. Guinia. 2003，23（4）：343-346(in Chinese with English abstract)
36. Song Xiaoling, **Qiang Sheng***. Sexual compatibility of three species of oilseed rape(*Brassica* spp.) with wild rapes (B. J Uncea var. *gracilIs* Tsen et Lee) and the fitness of F_1—potential for gene transfer. Chinese Journal of Applied Environment Biology. 2003，9（4）: 357-361(in Chinese with English abstract)
37. Song Xiaoling, **Qiang Sheng***. Gene flow between herbicide-resistant transgenic rice and *Echinochloa crusgalli* var. *mitis* under mentor pollen inducement. Chinese Journal of Rice Science, 2003，17(3): 191-195(in Chinese with English abstract)
38. Wu Hairong, **Qiang Sheng***. 2003. Quantitative survey on autumn exotic weeds in Nanjing. Biodiversity Science,11（5）: 9-15. (in Chinese with English abstract)
39. CHEN Kai-Ning,**QIANG Sheng**, LI Wen-Chao,WU Qing-Long and HU Yao-Hui. Studies on Reproduction Diversity in *Potamogeton pectinatus*. Acta Phytoecologica Sinica. 2003. 27（5）:672-676(in Chinese with English abstract)
40. **Qiang Sheng**. Effect of essential oil extracted from *Acorus gramineus* rhizomes on germination and growth of barnyardgrass, eclipta and rice(*Oryza sativa*). J. of Wuhan Botanical Research, 2003, 21(3): 249—253 (in English)
41. **Qiang Sheng***, Wang Qingya, Dai Baojiang, Ge Haiyan, Zhu Jingjing, Li Guangying. A new technique on bioassay of glyphosate by using alligator weed(*Alternanthera philoxeroides*). Acta Agriculturae Shanghai, 2003, 19(2):70-74. (in Chinese with English abstract)
42. **Qiang Sheng***, Shen Junming, Zhang Chengqun, Shao Gengyun, Hu Jinliang, Wang Fengliang. The influence of cropping systems on weed communities in the cotton fields of Jiangsu Province. Acta Phytoecologica Sinica, 2003, 27(2):278-282. (in Chinese with English abstract)
43. **Qiang Sheng,** Weed diversity of arable land in China. J of Korean Weed Science. 2002.22（3）：23-28 (in English)
44. **QIANG Sheng**, CHANG Ying , WAN Zuoxi , LI Yanghan, Comparison on pathogenicity and other characteristics of five isolates of Alternaria alternata from *Eupatorium adenophorum*. Journal of Nanjing Agricultural University, 2002 , 25 (4) : 23～27.
45. Song Xiao-ling, **Qiang Sheng***, LIU Lin-li, XU Yan-hong Assessment on gene flow through detection of sexual compatibility between transgenic rice with bar and *Echinochloa crusgalli* var. *mitis*, Scientia Agricultura Sinica, 2002, 35(10):1228-1231. (in Chinese with English abstract)
46. Song Xiaoling, **Qiang Sheng***, Liu Lingli, Xu yanhong, Liu youliang, Gene flow of pollen cross between *Oryza officinalis* Wall and transgenic rice with bar gene, J. of Nanjing Agric. Univ. 2002. 25(3): 25-28 (in Chinese with English abstract)
47. Song Xiaoling, **Qiang Sheng*** Xu Yanhong Liu lingli Qiao Liya Biological characters of anthesis and pollination of *Echinochloa* sp. J of Plant Reso. & Env. 2002，11（3）: 12-15 (in Chinese with English abstract)
48. Wang Kaijin, **Qiang Sheng***, Quantitative analysis of weed communities in the wheat fields in the north of Jiangsu Province, Jiangsu J. of Agricultural Science. 2002.18(3):147-153 (in Chinese with English abstract)
49. Guo Shuiliang, **Qiang Sheng**, Analysis on relationship of 58 weed species with 6 soil heavy metal elements in Jinhua suburb, J. of Nanjing Agric. Univ. 2002. 25（2）: 21-26 (in Chinese with English abstract)

50. Wei S.H. and **Qiang Sheng***., On a design and development of China weed information system based on the web. J. of Wuhan Botanical Research.2002.20（4）:320-324 (in Chinese with English abstract)
51. Wan, Zuoxi, Zhu, Jingjing, **Qiang, Sheng***. 2001. The pathogenic mechanism of toxin of *Alternaria alternata* (Fr.) Keissler to *Eupatorium adenophorum* Spreng. J. Plant Resour. & Envir. 10(3):47-50.
52. Zeng, Qing & **Qiang, Sheng***. 2001. *Colletotrichum gloeosporioides* Penz f.sp. *veronicae* and the process of its infection. Acta Phytophylacia Sinica 28(3):279-284.
53. Song, Xiaoling & **Qiang, Sheng***. 2001. Advances in safety assessment techniques and gene flow of transgenic herbicide-resistant crops. Advances in Plant Sciences. Vol. 393-402.
54. Zhu, Jingjing & **Qiang, Sheng***. 2001. Studies on the clusters and control of summer weed in turf in Nanjing. J. Nanjing Agric. Univ. 24(4):14-18.
55. **Qiang Sheng***, Li Guangying. 2000. Occurrence of summer weed species in the turf in Nanjing city and their control. Acta Prataculturae Sinica. 9(1):48-54(in Chinese with English abstract).
56. **Qiang Sheng***, Wei Shouhui, Hu Jinliang. 2000. On weed flora and infestation in cotton fields in Jiangsu Province. J. of Nanjing Agric. Univ. 23(2):24-27(in Chinese with English abstract).
57. Zeng, Qing and **Qiang, Sheng***. 2000. Isolation and pathogenicity of a strain qz-97a as a biocontrol agent for *Veronica persica*. J. of Nanjing Agric. Univ. 23(3);21-24 (in Chinese with English abstract).
58. **Qiang, Sheng*** and Cao, Xuezhang, 2000. Survey and analysis of exotic weeds in China. J. Plant Resour. & Environ. 9(4): 31-38. (in Chinese with English abstract).
59. **Qiang, Sheng*** and Jingliang Hu. 1999. Quantitative analysis of the occurrence and distribution of weed communities in the cotton fields of Jiangsu Province. Acta Ecol. Sinica.19(5):124-131 (in Chin. with Engl. abstr.).
60. **Qiang, Sheng***, Zuoxi Wan, Yunfa Dong and Li Yanghan. 1999. Phytotoxicity of rude metabolites produced by *Alternaria alternata* to Crofton Weed. in: The Sustainable Management of Weeds Meeting the 21st Century in China. Nanning Guangxi: Guangxi Nationality Press158-165. (in Chin. with Engl. abstr.).
61. **Qiang, Sheng,** B.A. Summerell. 1999, Evaluation of virulence of Crofton weed (*Eupatorium adenophorum*) caused by mycelium of *Alternaria alternata*. The Proc. of 17th Asian-Pasific Weed Science Society Conference, pp345-347. Thailand Plant Protection Society (in Engl.).
62. **Qiang, Sheng***, Jingliang Hu et al. 1998, The occurrence and distribution pattern of weed communities and infestation in the cotton fields of the seacoast regions along the Huanghai Sea of Jiangsu Province. Jiangsu J. of Agricultural Science. 14(2):108-111.(in Chin. with Engl.).
63. **Qiang, Sheng**. 1998. The History, Status and Prospect of Bioherbicide Research. in: Zhou Guanghe (ed.). The Prospect of Plant Protection in the 21st Century. Chinese Science and Technology Press. Beijing China.(in Chin. with Engl. abstr.).
64. **Qiang, Sheng.** 1998. The history, status and prospect of the study on Crofton weed(*Eupatorium adenophorum* Spreng.), a worst worldwide weed. J. of Wuhan Botanical Research.16(4):354-360.
65. **Qiang, Sheng** & Liu Jiawan.1996, Ecological analysis and comparison of the character of the weed vegetation in the summer crop fields in the northern and southern regions of Anhui Province. J. of Nanjing Agric. Univ. 19(2):17-21.(in Chin. with Engl. abstr.).
66. **Qiang, Sheng**, Wang Qiyu et al. 1994, Quantitative analysis of weed communities of summer crop fields in Huoqiu County of Anhui Province. J of Plant Reso. & Env. Vol.3(2):39-44. (in Chin. with Engl. abstr.)
67. **Qiang, Sheng** & Li Yanghan. 1994, On weed flora in rice fields of Yanjiang area in Anhui Province. J. of Agric. Sci. of Anhui. 22(2):135-138.(in Chin. with Engl. Abstr.) .
68. **Qiang, Sheng** & Li Yanghan. 1991, Technique of application of the fuzzy cluster analysis to the classification of weed communities. ***Advanced Ecology of China.*** Science Press, Beijing China.pp 9-14(in Chin. with Engl. abstr.)
69. **Qiang, Sheng &** Li Yanghan. 1991, The preliminary survey on the weed flora in the fields of Gansu Province (in the Northwestern China). Weed Sci. Vol.27(4):12-14.(in Chin.).
70. **Qiang, Sheng** & Li Yanghan. 1989, Investigation on the weed communities in rice fields in Yanjiang area of Anhui Province. J. of Weed Sci. Vol.3(3):18-25. (in Chinese with English abstract)
71. **Qiang, Sheng** & Li Yanghan. 1990, On the distribution pattern of weed communities of summer crop fields in river valley and hilly lands of Anhui Province. 1990, Acta Phytoecol. et Geobot. Sinica. Vol.14(3):213-219.(in Chin. with Engl. abstr.)

ACADEMIC BOOKS AND SOFTWARE

1. Qiang Sheng. Flora of carrot family (*Umbelliferae*) in Anhui Porvince. in ***Flora of Anhui Province***. Vol.3, 1990, Beijing: Chinese Prospect Press. pp.596-643.(in Chin.).
2. Qiang, Sheng(one of chapters), 2002, General Plant Protection. Higher Education Press. Beijing China. (texbook) (in Chin.)
3. Qiang, Sheng(Chief editor): 2003, Web-course of botany. Beijing: Higher Education Press. (second edition, 2005)

CONFERENCE PAPER

1. Song Xiaoling, Qiang Sheng*, Ma Bo. Weed control effect of a new herbicide LGC-42153 in rice fields in China. In: Proceedings of the 20th Asian-Pacific Weed Science Society Conference. 7-11 November, 2005. Ho Chi Minh City,

Vietnam: Agricultural Publishing House. 2005, p316-322.

2. Song Xiaoling, Wu Jiajun, Qiang Sheng*. Establishment of a test method of glyphosate-resistant Conyza canadensis in China. In: Proceedings of the 20th Asian-Pacific Weed Science Society Conference. 7-11 November, 2005. Ho Chi Minh City, Vietnam: Agricultural Publishing House. 2005, p316-322.
3. Auld, Bruce A., Heather Smith and **Qiang Sheng**. 1996. Success of an invert emulsion formulation in two bioherbicide systems. Proc. of the 9th International Symposium on Biological Control of Weeds.1996.1 South Africa.
4. Auld, Bruce A., Heather Smith and **Qiang Sheng**. 1997. Control of cocklebur with a combination of *Alternaria zinniae* and low rates of Imazaquin. The Proc. of the 16th Asian-Pasific Weed Science Society Conference. Malaysian Plant Protection Society. pp345-347. (in Engl.)
5. K.J.Wang, **Qiang Sheng***,and D.Y.Zhang, 2001. Quantitative analysis of weed communities in the wheat fields of Jiangsu Province.The Proceedings of Asian-pacific Weed Sci.Soc.Conf.2001,2,Beijing：The Standard Press：105-112
6. S.H.Wei and **Qiang Sheng***, 2001. On the development of china weed information system based on the web. The Proceedings of Asian-pacific Weed Sci.Soc.Conf.2001,2,Beijing：The Standard Press：105-112
7. **Qiang Sheng**.,B.A.Summerell,and Y.H.Li, 2001. Evaluation of mycelium virulence of *Alternaria alternata* to *Eupatorium adenophorum*, The Proceedings of Asian-pacific Weed Sci.Soc.Conf.2001,2,Beijing：The Standard Press：105-112
8. Zeng, Qing and **Qiang, Sheng***. 1999. The biological characteristics of the isolate QZ-97a, a pathogen to *Veronica persica*. The Sustainable Management of Weeds Meeting the 21st Century in China. The Proceedings of the 6th Weed Science Conference of China . Nanning Guangxi: Guangxi Nationality Press170-176(in Chinese with English abstract).
9. **Qiang, Sheng** . 1994, An outline of division of weed distribution and flora of the fields in China. Applied Vegetation Ecology (the Proc. of the 35th Symposium of International Association for Vegetation Science. The Eastern China Normal University Press. pp. 346-354.(in English)

INTERNATIONAL ACADEMIC ACTIVITY

1. Visited Saskatchewan, Ontario and Quebec to do a survey of natural enemies, species and distribution of goldernrod (*Solidago canadensis*) in Canada during August 4 to 15, 2007.
2. Visited Washington DC, North Carolina, Missorri and Iowa to exchange on management of biosafety of GMCs with administrators of USTDA, USDA, EPA, FDA and APHIS(USDA), research scientists from North Carolina State University and Iowa State University and makers of GMC from Syngenta Company, Mansanto Co., Pioneer Co. and Athenix Co. invited by USA government and supported by Sino-US Biotechnology and Biotechnology Safety Assessment Management Program for April 11-25, 2007.
3. Organized the International Workshop of Weed Science and Agricultural Production Safety at Nanjing Agricultural University in April 8-9, 2007. 160 participants attended this workshop, who came from Canada, Australia, Korea, Singapore, Costa Rico and China. Chiefly edited the proceedings which included 57 papers and abstracts. Thirty seven oral presentations were present at this workshop. Present an oral presentation entitled the action target, mechanism and potential of a microbe-based herbicide in killing weeds.
4. Modified Organism. November 26-28, 2005, Nanjing. Oral presentation: A technique of the safety assessment of gene flow risk of transgenic herbicide-resistant rice based on different compatibilities.
5. International Workshop on Paddy Weeds. 6 November, 2005. Ho Chi Minh City, Vietnam. Oral presentation: Sedge weeds and their shift influenced by Herbicides Application in Paddy Fields in China.
6. International Workshop on Paddy Weeds. 6 November, 2005. Ho Chi Minh City, Vietnam. Oral presentation: Sedge weeds and their shift influenced by Herbicides Application in Paddy Fields in China.
7. The 20th Asian-Pacific Weed Science Society Conference. 7-11 November, 2005. Ho Chi Minh City, Vietnam. Oral presentation: A review of exotic weeds and integrated management in China.
8. APEC Workshop on Invasive Alien Species, Beijing, September19-22, 2005, sponsored by Ministry of Agriculture, China and US Department of State.
9. Attending to the Fourth International Weed Science Congress, Durban, South Africa, June 19-26, 2004. Oral presentation: Weed diversity on weed flora and vegetation in the summer crop fields of Anhui Province China.
10. Attending to XVth International Plant Protection Congress， May 11-16, 2004，BEIJING, CHINA, Oral presentation: Regionalization of weed vegetation of arable land in China
11. Visit to Alberta Research Council as a senior visiting scientist supported by China Scholarship Council and Alberta Research Council(from August 1, 2003 to January 12, 2004). During Novenmber 1 – 19, 2003, attended to the 7th International Conference on Ecology and Management of Alien Plant Invasions, visited to the Fairchild Botanical Garden and the plant molecular biology laboratory in this garden, associated with Florida International University, Vero Beach Research Station, Syngenta, and Sustainable Agricultural Systems Laboratory on Biotechnology, USDA. On January 1 to 11, visited Bioherbicide Laboratory, Mcgill University and University of British Columbia.
12. Visit to Crop Ext. Sta., Rural Development Administration, Seoul National University, Kyungpuk National University,

LGCI invited by the Korean Society of Weed Science during April 23 – 30, 2002. the presentation at the Annual Meeting of the Korean Society of Weed Science: Weed Diversity of Arable Land in China. A seminar: the Status and Progress of Bioherbicides in China at Honnong R & D Institute and the institute of LGCI.

13. Attending to the 18th Asian-Pacific Weed Science Society (APWSS) Conference held in Beijing, China from 28 May to 2 June 2001 and being one of the organizing committee members of the 18th APWSS. The presentations: An Evaluation of the Virulence of Mycelium of *Alternaria alternata* to Crofton Weed (*Eupatorium adenophorum*) and On the potential of *Colletotrichum gloeosporioides* f.sp *veronicae* as a mycoherbicide for *Veronica persica*
14. Visit to Biocare Products Co.in Sydney, SGB Pty Ltd at Wodonga, and Cobbitty Experimental Station of Sydney University at Camden during Feb. 18 – March 5, 2001. Survey the creation, production and market of bio-pesticides in Australia.
15. Attending to the 43rd Symposium of the International Association for Vegetation Science, Nagano, Japan on July 22-28, 2000. The presentation for 30Minutes: Quantitative analysis of the weed communities of the cotton fields in the cotton-growing regions of Jiangsu Province.
16. Visiting scholar at Orange Agricultural Institute of NSW Agriculture and the Royal Biotanic Gardens, Sydney from June 1994 to September 1995. The research activity: the potential of development of mycoherbicide for Crofton Weed (*Eupatorium adenophorum*) using *Alternaria alternata*, the potential of development of mycoherbicide for cocklebur (*Xanthium occidentalis*) using mycelium of *Alternaria zinniae.*

PATENTS AUTHORIZED

1. Qiang Sheng et al., 2002. A technique of an isolate of *Colletotrichum gloeosporioides* to be developed as a biological agent for control of weeds. Patent number： ZL001125060
2. Qiang Sheng et al., 2003. A technique of metabolite of *Alternaria alternata* for biological control of weeds. Patent number:ZL001125605
3. Qiang Sheng et al., 2003. A method of application of a mixture of Urea. Patent number：ZL01113602.2
4. Qiang Sheng et al., 2003. Isolates and a technique as a biological agent for control of weeds. Patent number：ZL01134002.9
5. Qiang Sheng et al. 2005. A technique for mass production of bioherbicide. Patent number：ZL03132322.7

AWARDS

1. Outstanding professor for higher education, awarded by the Government of Jiangsu Province. 2006
2. Winner of special government allowance in 2004,awarded by the State Council of China
3. Outstanding Teaching Achievements of Botany awarded by the Government of Jiangsu Province. 2004
4. Best Course of Botany awarded by Chinese Ministry of Education. 2003
5. Best Paper Award awarded by Journal of Applied and Environmental Biology. 2003
6. Best Teaching Software of Botany awarded by the Government of Jiangsu Province. 2002
7. Best Course Group of Botany awarded by the Government of Jiangsu Province. 2002
8. Science and Technology Improvement Award in the dynamics of weed community and its control in the cotton fields by the Government of Jiangsu Province. 2001
9. Oustanding Teaching Achievements of Botany awarded by the Government of Jiangsu Province. 2001
10. Best Paper Award in the 6th Weed Science Conference of China . Nanning Guangxi. 1999.
11. Science and Technology Improvement Award in Investigation and Control of the seedling weeds in the cotton fields by Jiangsu Science and Technology Commission. 1996.
12. Best Paper Award in the Scientific Research Paper Contest at Nanjing Agric. Univ. 1996.
13. Outstanding Scientific Research Achievements in Weed Science awarded by Nanjing Agric. Univ. 1995.
14. Best Paper Award at the 4th Symposium of the Weed Society of Jiangsu Province, 1989.

MAJOR PARTICIPATION IN SCIENCE COMMUNITY

1. The Society of Weed Science of Jiangsu Province: Vice President
2. The Society of Botany of Jiangsu Province: Vice President
3. The Society of Weed Science of China: member of steering committee
4. Chinese Journal of Weed Science: Associate Editor