


CURRICULUM VITAE

Personal Information			
Name	Kexian Yi	Gender	Male
Position Title		Dr. Prof.	
Institute		Institute of Environment and Plant Protection, Chinese Academy of Tropical Agricultural Sciences (CATAS).	
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Research Interest
<ul style="list-style-type: none"> ● Research on fungal disease control technology of tropical crops (forage grass, sisal, coffee, etc.) ● Breeding and cultivation of disease resistance of tropical crops (forage, sisal, coffee, etc.)

Education & Working Experience
<p>EDUCATION</p> <ul style="list-style-type: none"> ● 2002-2005: Ph.D in tropical crops genetics and breeding(Plant molecular breeding for disease resistance), South China University of Tropical Agriculture, China ● 1998-2001: M.S. in tropical crops genetics and breeding(Plant gene engineering for breeding), South China University of Tropical Agriculture, China ● 1981-1985: B.S. in forage science (forage germplasm and breeding) , Gansu Agricultural University, China. <p>PROFESSIONAL EXPERIENCE</p> <p>Director and Principal Investigator – June 2008 to present</p> <ul style="list-style-type: none"> ● Director of the Institute of Environment and Plant Protection, Chinese Academy of Tropical Agricultural Sciences (CATAS). ● Principal investigator on tropical fiber crops biotechnology in the Institute of Tropical Bioscience and Biotechnology, Chinese Academy of Tropical Agricultural Sciences (CATAS). <p>Professor and Principal Investigator – April 2006 to May 2008</p> <p>Research professor and principal investigator for sisal and tropical forage breeding and utilization in the Institute of Tropical Bioscience and Biotechnology, CATAS, Hainan, China.</p> <p>Main researches:</p> <ul style="list-style-type: none"> ● Biology and genetic diversity of sisal ● Sisal regeneration by tissue culture and gene transformation for disease resistant breeding, particularly for sisal disease control of <i>Phytophthora nicotianae</i> and <i>Phytophthora nicotianae</i>.

- Cellulose degradation of King Grass(*Pennisetum purpureum* × *P. typhoideum* cv.Reyan No.4) for ethanol for biofuel
- Multi-purpose uses of sisal by-product e.g. ethanol for biofuel and natural compounds for medicine from sisal by-product after fibre processing.

Professor and Project Leader-October 2003 to March 2006

Research professor for forage and sisal disease resistant breeding in South Subtropical Crops Research Institute, CATAS, Hainan, China, **Main researches:**

- Sisal and tropical forages germplasms and evaluation
- Sisal fungi disease (*Phytophthora nicotianae* and *Phytophthora nicotianae*) resistant breeding
- Tropical forage intercropping system with rubber trees and sisal for green manure and dairy cow

Visiting Scholar--February 1999 to May 1999

Visiting Scholar with Dr. Sukumar Chakraborty, involved in the CSIRO project on high yielding anthracnose resistant stylosanthes for agricultural systems (CS1/95/129) in Cooperative Research Centre for Tropical Plant Pathology, CSIRO, Queensland, Australia.

Associate professor and Project Leader –March 1998 to September 2003

Associate professor and project leader in charge of researches on R & D of tropical forages in Tropical Crops Germplasm Research Institute, CATAS, Hainan, China, **Main researches:**

- Tropical forages germplasm collection and evaluation
- High yielding and disease resistant breeding and utilization of tropical forages e.g. Stylo and King grass
- Forages technology development for Smallholder farmers by Farmer's Participatory Approaches collaborated with CIAT(Centro Internacional de Agricultura Tropical)

Visiting Scholar--September 1996 to April 1997

Studied in Centro Internacional de Agricultura Tropical(CIAT), Cali, Colombia, as a Visiting Scholar with Drs. Carlos Lascano and Peter Kerridge on tropical shrub legumes evaluating for animal nutrition in South America.

Research assistant and Project Leader--October 1994 to February 1998

Research assistant engaged in tropical forage disease resistant breeding. Main researches in Tropical Pasture Research Centre, Institute of Agriculture and Animal Husbandry, CATAS, Hainan, China,

Research assistant --July 1985 to September 1994

Research assistant engaged in forage germplasm evaluation and alfalfa disease resistant breeding in Lanzhou Research Institute of Animal Sciences, Chinese Academy of Agricultural Sciences(CAAS), Gansu, China,

Representative Result

PUBLICATIONS:

- Chen Helong, Lu Zhiwei, Wang Jian, Chen Tao, Gao Jianming, Zheng Jinlong, Zhang Shiqing, Xi Jingen, Huang Xing, Guo Anping, Yi Kexian. Induction of new tetraploid genotypes and heat tolerance assessment in *Asparagus officinalis* L[J]. *Scientia Horticulturae*, 2020, 264(C).
- Chen Helong, Guo Anping, Wang Jian, Gao Jianming, Zhang Shiqing, Zheng Jinlong, Huang Xing, Xi Jingen, Yi Kexian. Evaluation of genetic diversity within asparagus germplasm based on morphological traits and ISSR markers.[J]. *Physiology and molecular biology of plants : an international journal of functional plant biology*, 2020, 26(2).
- Chen Helong, Guo Anping, Lu Zhiwei, Tan Shibe, Wang Jian, Gao Jianming, Zhang Shiqing, Huang Xing, Zheng Jinlong, Xi Jingen, Yi Kexian. *Agrobacterium tumefaciens*-mediated transformation of a hevein-like gene into asparagus leads to stem wilt resistance.[J]. *PloS one*, 2019, 14(10).
- Huang Xing, Xiao Mei, Xi Jingen, He Chunping, Zheng Jinlong, Chen Helong, Gao Jianming, Zhang Shiqing, Wu Weihuai, Liang Yanqiong, Xie Li, Yi Kexian. De Novo Transcriptome Assembly of *Agave H11648* by Illumina Sequencing and Identification of Cellulose Synthase Genes in *Agave* Species.[J]. *Genes*, 2019, 10(2).
- Huang Xing, Wang Bo, Xi Jingen, Zhang Yajie, He Chunping, Zheng Jinlong, Gao Jianming, Chen Helong, Zhang Shiqing, Wu Weihuai, Liang Yanqiong, Yi Kexian. Transcriptome Comparison Reveals Distinct Selection Patterns in Domesticated and Wild *Agave* Species, the Important CAM Plants.[J]. *International journal of genomics*, 2018, 2018.

PATENT:

- The invention relates to a primer pair, a kit and a detection method for rapid detection of *Hemileia vastatrix*
- A device for fertilizing of sisal
- A hydroponic device for sisal
- A hand-held sisal harvester
- Mulch with fluff on the surface

PROJECTS:

- National Key R & D Program of China (No.2018YFD0201100) -Integrated Research and Demonstration of Chemical Fertilizer and Pesticide Reduction Technology for Special Cash Crops, 2018-2020, RMB44.85 million;
- National Natural Science Foundation of China, Cloning and function analysis of moss-related genes in sisal cultivar H.11648, 2018.1-2021.12, RMB560000;
- National Natural Science Foundation of China (NSFC) : Study on the new strain of sisal hemp resistant to zebra stripe disease by transgenic technology (31371679), 01/2014-12/2017, RMB820000;
- Modern Agricultural Industrial Technology System (Sisal Physiology and Cultivation Post) (CARS-16-E16), 2016-2020, RMB 3.5 million ;
- FAO/IAEA International Cooperation Project -The Application of Sterile Insect Technique (SIT) as Part of Area Wide Integrated Pest Management (AW-IPM) Approach in The Control of Two Fruit Flies in Hainan, China, 01/2020.1-024.12, 620,000 euros.

MAIN ACHIEVEMENTS AND AWARDS

- 5 new cultivars/varieties of forages were bred and released by the Ministry of Agriculture, China. They are *Axonopus compressus* cv. Huanan, *Medicago sativa* cv. Zhonglan No.1, *Stylosanthes quianensis* cv. Reyan No.10, *Stylosanthes scabra* cv. Seca, *Macroptilium atropurpureum* cv. Siratro
- 15 prizes of Science and technology were awarded by central and Hainan provincial

government in China including Stylo and King grass breeding and utilisation