

Vincent Vadez, Ph. D.

**Vincent VADEZ , Ph.D.**

**Date and place of birth:** 7<sup>th</sup> December, 1966, France  
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**Nationality:** French

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**CURRENT POSITION**

Senior Scientist  
ICRISAT  
Crop Physiology Laboratory, GT-1 Biotechnology  
Patancheru 502 324, Andhra Pradesh, India

**EDUCATION**

- **Ph.D.** in Agronomy, National School of Agronomy, Montpellier, France (1996).
- **Master of Science**, National School of Agronomy, Montpellier, France (1990).
- **Ingeneer** in Agronomy, National School of Agronomy, Montpellier, France (1990).
- **Bachelor of Arts**, Clemenceau College, Reims, France (1987).

**SKILLS**

**Agronomic research**

- Drought stress – Salinity – Phosphorus deficiency
- Plant physiology – Germplasm screening – Field and on-farm trials
- Farming systems – Technology adoption – Low input agriculture
- Data acquisition - Database construction, cleaning, and management
- Data analysis – Statistics and econometrics

**Development research**

- Project management: Design, implementation, monitoring
- Project administration: Budget, human resources, reporting
- Participatory methods – Training of rural populations
- Impact assessment – Fundraising – Dissemination of results

**Interpersonal and communication**

- Presentation: formal, informal, academic
- International teamwork interaction – Multidisciplinary work
- Mentoring in research methods and training techniques
- Word – Excel – Powerpoint – Access – Stata – SAS - SigmaPlot - Reference Manager.

**LANGUAGES**

French: native speaker  
English: fluent  
Spanish: fluent  
Others: Catalan, German, Tsimane’

## CAREER

### Agronomic and development research

- **Senior Scientist** (Crop Physiology). June 04 – To date. ICRISAT, International Crop Research Institute for the Semi-Arid Tropics, AP, India. Work on abiotic stresses.
- **Project Manager.** Bolivia Dec.00 – May 04. CID-Heller School for Social Policy and Management, Brandeis University, Waltham, Massachusetts 02454, USA. Assess the effects of pigeon pea on the farm productivity of the Tsimane' Amerindians (Bolivia).
- **Volunteer work.** Bolivia, Nov 99 – Oct 00. Field and on-farm test various cover crops to improve the productivity of the farming system of a rural poor population.
- **Post-doctoral Scholar.** USA, Nov 96 - Nov 99; Oct-Dec 00: USDA-ARS, Agronomy Dpt, Univ. Florida Gainesville, FL USA. Physiological traits for the tolerance of symbiotic nitrogen fixation to drought in soybean. Screening of tolerant germplasm.
- **Research Fellow.** Colombia, Jul 92 – Nov 94. CIAT (Centro Internacional de Agricultura Tropical), Cali, Colombia. Physiological traits for tolerance of nitrogen fixation to P deficiency in bean. Screening of tolerant germplasm.
- **Master student.** France, Oct 89-Oct 90.: INRA (Institut National de la Recherche Agronomique, France). Effect of salinity on nitrogen fixation.

### International cooperation and consultancy

- **Intern.** Bolivia, May 03 – May 04. UNDP, Public Policy Unit, Bolivia. Assess the effects of decentralization on the Tsimane' Amerindians.
- **Consultant.** Cuba, Apr 96 - Sept 96. INRA, France, and the Soil Institute, Cuba. Assess the scientific exchange between France and Cuba.
- **Cooperant and Collaborator.** Singapore / Malaysia, Oct 90 – Mar 92. Nat'l University of Singapore / CIRAD, France. Scientific support to reforestation projects in Malaysia.

## ACHIEVEMENTS and INTERESTS

- Select tolerant germplasm to drought and other abiotic stresses, and identify related physiological traits (Publications: 2,3, 5-18, 29, 36-40, 44-47).
- Sustainably improve the welfare of rural poor populations and link multidisciplinary research approaches to development work (Grant 1, 3, 5; Publications : 1, 19, 20, 24-26, 28-35, 41,42, 49, 50).
- Introduce pigeon pea in the farming system of a population of Bolivia (Grant 3, 5).

**Annex 1:** Grants and additional training

**Annex 2:** Publications (agronomic and development research, books, conferences, extension)

**Annex 3:** Referees

## **ANNEX 1. Grants and additional training**

### **Grants**

1. National Science Foundation, 2003-2005, about \$150,000. Study of how economic inequalities affect subjective well being. (co-P.I.; P.I. Thomas McDade, Northwestern U.).
2. National Science Foundation, 2004-2006, \$210,000. Summer graduate field training in methods of data collection. (Field Director, P.I. Ricardo Godoy, Brandeis U.) (2003).
3. National Science Foundation, 2001-2004, \$214,000. "New farm technologies and human welfare among the Tsimane' Amerindians of Lowland Bolivia. (co-P.I.; P.I. William Leonard, Northwestern U.) (2001-2004).
4. National Science Foundation, 2002, \$20,000. Modernization and its Discontents: Socioeconomic and Biological Influences on Quality of Life. (co-P.I.; P.I. Thom McDade, Northwestern U.) (2002).
5. World Bank, Culture and Poverty Learning Research Group, 2000-2002, \$143,000. "Might culture pay off? Using an experimental design to evaluate the effects of farming innovations and cultural empowerment among lowland Amerindians in Bolivia" (P.I, with Victoria Reyes Garcia, and Ricardo Godoy).
6. French Academy of Agriculture, 1996, \$4,000 . Award granted for the PhD dissertation.

### **Additional training**

- **Participatory methods.** Bolivie, 99-00.
- **Molecular biology** France, INRA 96. Two-months training on PCR / RAPD identification of Rhizobium strains collected from fields inoculated 20 years ago.
- **Ecophysiology** France, CNRS, 89. Two months research at the Ecophysiology Laboratory, Montpellier.

## ANNEX 2. Publications

### Agronomic research in peer reviewed journals.

Bhatnagar-Mathur P, **Vadez V**, and Sharma KK. 2008. Transgenic approaches for abiotic stress tolerance in plants: retrospect and prospects Plant Cell Reports (In press)

Bhatnagar-Mathur P, Devi J, Lavanya M, Reddy DS, **Vadez V**, Serraj R, Yamaguchi-Shinozaki K and Sharma KK. 2007. Stress-inducible expression of *At DREB1A* in transgenic peanut (*Arachis hypogaea* L.) increases transpiration efficiency under water-limiting conditions. Plant Cell Reports, 26, 2071-2082.

**Vadez V**, Rao S, Sharma KK, Bhatnagar Mathur and Devi JM. 2007. DREB1A allows for more water uptake in groundnut by a large modification in the root/shoot ratio under water deficit. International Arachis Newsletter, 27, 27-31.

Krishnamurthy L, **Vadez V**, Devi MJ, Serraj R, Nigam SN, Sheshshayee MS, Chandra S, and Aruna R 2007. Variation in transpiration efficiency and its related traits in a groundnut (*Arachis hypogaea* L.) mapping population. Field Crops Research, 103, 189-197.

Srivastava N, **Vadez V**, Krishnamurthy L, Saxena KB, Nigam SN and Rupakula A 2007. Standardization of a screening technique for salinity tolerance in groundnut (*Arachis hypogaea*) and pigeonpea (*Cajanus cajan*). Indian Journal of Crop Science, Vol 2 (1), 209-214.

**Vadez V**, Krishnamurthy L, Kashiwagi JW, Kholova J, Devi JM, Sharma KK, Bhatnagar-Mathur P, Hoisington DA, Hash CT, Bidinger FR, and Keatinge JDH 2007. Exploiting the functionality of root systems for dry, saline, and nutrient deficient environments in a changing climate. E-Journal of the Semi-Arid Tropic Agriculture Research, (in press)

**Vadez V**, L Krishnamurthy, PM Gaur, HD Upadhyaya, DA Hoisington, RK Varshney, NC Turner, KHM Siddique 2007. Large variation in salinity tolerance is explained by differences in the sensitivity of reproductive stages in chickpea. Field Crop Research 104, 123–129.

Sinclair TR, Purcell LC, King CA, Sneller CH, Chen P, and **Vadez V** 2007. Drought tolerance and yield increase of soybean resulting from improved symbiotic N<sub>2</sub> fixation. Field Crops Research 101, 68–71.

Srivastava N, **Vadez V**, Upadhyaya HD, and Saxena KB 2006. Screening for intra and inter specific variability for salinity tolerance in Pigeonpea (*Cajanus cajan*) and its related wild species. J. SAT Agric. Res. Vol 2 pp 1-12  
<<http://www.icrisat.org/journal/cropimprovement/v2i1/v2i1screeningfor.pdf>>

Kulkarni V.N., Rai K.N., Dakheel A., Mohammed Ibrahim, Hebbara M., **Vadez V**. 2006. Pearl millet germplasm adapted to saline conditions. International Sorghum and Millet Newsletter 47, 103-106.

**Vadez V**, Srivastava N, Krishnamurthy L, Aruna R, Nigam SN 2005. Standardization of a protocol to screen salinity tolerance in groundnut. International Arachis Newsletter 25, 42-48.

Kashiwagi J, Krishnamurthy L, Serraj R, Upadhyaya HD, Krishna SH, Chandra S, & **Vadez V** 2005. Genetic variability of drought-avoidance root traits in the mini-core germplasm collection of chickpea (*Cicer arietinum* L.). Euphytica 146, 213-222

**Vadez, V.**, Reyes-García V., Godoy R., Byron E., Apaza L., Leonard W.R., Pérez E., Wilkie D 2004. Does integration to the market homogenize agriculture? Evidence from Tsimane' Amerindians. Human Ecology, 32(5) 635-646.

Bhatnagar-Mathur P, Devi MJ, Serraj R, K Yamaguchi-Shinozaki K, **Vadez V** and Sharma KK. Evaluation of transgenic groundnut lines under water limited conditions, International Arachis Newsletter 24, 33-35 2004

Sinclair, T.R., **Vadez V.**, and Chenu K. 2003. Ureide Accumulation in Response to Mn Nutrition by Eight Soybean Genotypes with N<sub>2</sub> Fixation Tolerance to Soil Drying. Crop Science 43(2): 592 - 597.

Sinclair, T.R. and **Vadez V.** 2002. Physiological traits for crop yield improvement in low N and P environment. Plant and Soil. 245 (1), 1-15.

Obaton, M., Bouniols A., Piva G. and **Vadez V.** 2002. Are Bradyrhizobium japonicum stable during a long stay in soil. Plant and Soil 245: 315-326.

**Vadez, V.** and Sinclair T.R. 2002. Sensitivity of N<sub>2</sub> Fixation Traits in Soybean Cultivar Jackson to Manganese Crop Science.42:791-796.

**Vadez, V.** and Drevon J.-J. 2001. Genotypic variability in phosphorus use efficiency for symbiotic N<sub>2</sub> fixation in common bean (*Phaseolus vulgaris*). Agronomie, 691-699.

Serraj, R., **Vadez V.**, and Sinclair T.R. 2001. Feedback regulation of symbiotic N<sub>2</sub> fixation under drought stress. Agronomie 21, 621-626.

**Vadez, V.** and Sinclair T.R. 2001. Effect of varying soil Mn availability on ureide degradation in soybean leaves. Soil and Crop Society of Florida.

**Vadez, V.** and Sinclair T.R. 2001. Leaf ureide degradation and the N<sub>2</sub> fixation tolerance to water deficit in soybean. Journal of Experimental Botany, 52 (354): 153-159.

**Vadez, V.**, Sinclair T.R. and Serraj R. 2000. Asn and ureide accumulation in nodules and shoots as feedback inhibitors of N<sub>2</sub> fixation in soybean. Physiologia Plantarum, 110: 215-223.

Sinclair, T.R., Purcell L.C., **Vadez V.**, Serraj R., King C.A., Nelson, R. 2000. Identification of soybean genotypes with N<sub>2</sub> fixation tolerance to water deficits. Crop Science, 40 (6):1803-1809.

**Vadez, V.** and Sinclair T.R. 2000. Ureide degradation pathways in intact soybean leaves. Journal of Experimental Botany, 51 (349): 1459-1465.

**Vadez, V.**, Sinclair T.R., Serraj R. and Purcell L.C. 2000. Manganese application alleviates the water deficit-induced decline of N<sub>2</sub> fixation. Plant Cell and Environment, 23: 497-505.

**Vadez, V.**, Beck D.P. and Drevon J.-J. 1999. Screening of genetic variability for N<sub>2</sub>-fixation under P deficiency in type III and type IV common bean (*Phaseolus vulgaris* L.). Euphytica 106: 231-242.

Serraj, R., **Vadez V.**, Denison R.F. and Sinclair T.R. 1999. Ureides decrease acetylene reduction activity and nodule permeability to oxygen in soybean. Plant Physiology, 119, 289-296.

**Vadez, V.**, Beck D.P. and Drevon J.-J. 1997. Utilization of the acetylene reduction assay to screen for tolerance of symbiotic N<sub>2</sub>-fixation to limiting P nutrition in common bean. Physiologia Plantarum, 99, 227-232.

**Vadez, V.**, Rodier F., Payré H. and Drevon J.-J. 1996. Nodule permeability to O<sub>2</sub> and nitrogenase-

linked respiration in common bean genotypes varying in their tolerance to P deficiency. Plant Physiology and Biochemistry 34,871-878.

**Vadez, V.**, Lim G., Durand P., Diem H.G. 1995. Comparative growth and symbiotic performances of four *Acacia mangium* provenances from Papua New-Guinea in response to P supply at various concentrations. Biology and Fertility of Soils 19, 60-64.

#### **Development research in peer reviewed journals.**

Godoy R, WR Leonard, V Reyes-García, E Goodman, TW McDade, T Huanca, S Tanner, **V Vadez**. Parental schooling, language use, birth decade, and changes in physical stature of adult offspring among Tsimane' Amerindians, Bolivian Amazon. Economics and Human Biology. 4:184-205. 2006.

Godoy R, DS Wilkie, V Reyes-García, WR Leonard, T Huanca, TW McDade, **V Vadez**, S Tanner. Human body-mass index (kg/m<sup>2</sup>) as a useful proxy to assess the relation between income and wildlife consumption in poor rural societies. Biodiversity and Conservation. 15 (14):4495-4506. 2006.

Godoy R, A Patel, V Reyes-García, CF Seyfried, WR Leonard, TW McDade, S Tanner, V Vadez. Nutritional status and spousal empowerment among native Amazonians. Social Science and Medicine. 63(3): 1517-30. 2006.

Godoy R, WR Leonard, V Reyes-García, E Goodman, TW McDade, T Huanca, S Tanner, **V Vadez**. Physical stature of adult Tsimane' Amerindians, Bolivian Amazon in the 20th century. Economics and Human Biology 4(2): 184-205. 2006.

Reyes-García V, **V Vadez**, S Tanner, T Huanca, WR Leonard, TW McDade. Evaluating indices of traditional ecological knowledge. A methodological contribution. Journal of Ethnobiology and Ethnomedicine. 2:21. 2006.

Godoy R, V Reyes-García, TW McDade, T Huanca, WR Leonard, S Tanner, **V Vadez**. 2006 Does village inequality in modern income harm the psyche? Anger, fear, sadness, and alcohol consumption in a pre-industrial society. Social Science & Medicine. 63 (2):359-372

Godoy R, V Reyes-García, TW McDade, S Tanner, WR Leonard, T Huanca, **V Vadez**, K Patel 2006 Why do mothers favor girls and fathers boys? A hypothesis and a test of investment disparity. Human Nature 17(2):169-189.

Reyes-García V, T Huanca, **V Vadez**, WR Leonard, D Wilkie 2006. Cultural, practical, and economic value of wild plants: A quantitative study in the Bolivian Amazon. Economic Botany 60 (1):62-74.

Reyes-García V, R Godoy, **V Vadez**, T Huanca, WR Leonard, TW McDade 2006. Individual and group incentives to invest in prosociality: A empirical study in the Bolivian Amazon. Journal of Anthropological Research 62(1):81-101.

**Vadez, V.**, Reyes-García V., Godoy R., Williams L., Apaza L., Byron E., Huanca T., Leonard W.R., Pérez E., and Wilkie D. 2003. Validity of self-reports to measure deforestation: Evidence from the Bolivian lowlands. Field Methods 15:3:289-304.

Godoy, R., Overman H., Demmer J., Apaza L., Byron E., Huanca T., Leonard W.R., Pérez E., Reyes-García V., **Vadez V.**, Wilkie D., Cubas A., McSweeney K., Brokaw N.. 2002. Local financial benefits of rain forests: Comparative evidence from Amerindian societies in Bolivia and Honduras. Ecological Economics 40:397-409.

Reyes-García V., **V. Vadez**, E. Byron, L. Apaza, W. Leonard, E. Pérez, D. Wilkie. Market economy and the loss of ethnobotanical knowledge: Estimates from Tsimane' Amerindians, Bolivia. Current Anthropology. 46(4) 2005.

Kirby, K., Godoy R., Reyes-García V., Byron E., Apaza L., Leonard W.R., Pérez E., **Vadez V.**, Wilkie D: 2002. Correlates of delay-discount rates: Evidence from Tsimane' Amerindians of the Bolivian rain forest. Journal of Economic Psychology 23, 291-316.

Apaza, L., Wilkie D., Byron E., Huanca T., Leonard W.R., Pérez E, Reyes-García V., **Vadez V.**, Godoy G. 2002. Role of meat prices in household consumption of bushmeat among the Tsimane' Amerindians of Bolivia. Oryx, 36 (4), 382-388

### Conferences presentations and papers

**Vadez V**, Hash CT, Rizvi SMH, Bidinger FR, Banttee, K, Sharma KK, Devi J, Bhatnagar-Mathur P, Kashiwagi J, Krishnamurthy L, Hoisington D, Varshney RK, Gaur PM, Nigam SN, Rupakula A, Upadhyaya HD 2007. What is the scope for molecular breeding and genetic engineering to improve crops' drought tolerance? 4<sup>th</sup> BioVision Conference, Alexandria, April 2006.

**Vadez V**, L Krishnamurthy, PM Gaur, HD Upadhyaya, DA Hoisington, RK Varshney, NC Turner, KHM Siddique 2006 Tapping the large genetic variability for salinity tolerance in chickpea. Proceeding of the Australian Society of Agronomy meeting (10-14 Sept 2006) <http://www.agronomy.org.au>

Valluru R, R Rizvi, CT Hash and **V Vadez** 2006 Efficient Microdosing of Phosphorus to Pearl millet Hybrids (*Pennisetum americanum* L.) for Improved Seedling Establishment under Nutrient-Stressed Environments. Proceeding of the National conference on the role of plant physiology and biotechnology in biodiversity conservation and agriculture productivity, Jaipur 24-26 Feb 06

Reyes-García V, **V Vadez**, N. Martí, T Huanca, WR Leonard, S. Tanner, Ethnobotanical knowledge correlates with crop diversity. Evidence from a native Amazonian society (Oral presentation). 9th Biannual Conference of the International Society for Ecological Economics, Delhi (India), December 2006.

Reyes-García, V, TW McDade, **V Vadez**, T Huanca, WR Leonard, S Tanner, R Godoy, Ethnobotanical knowledge and nutritional status. Estimates from the Tsimane' in the Bolivian Amazon (Oral presentation), Tenth International Congress of Ethnobiology, Ching Rai (Thailand), November 2006.

Aiello MO, WR Leonard, TW McDade, RA Godoy, V Reyes-García, **V Vadez**, T Huanca, Variation in subjective and objective measures of health among Tsimane' Amerindians: a longitudinal study of school aged children. (Abstract) American Journal of Human Biology 18(2):251. 2006.

- Nyberg C., TW McDade, WR Leonard, S Tanner, V Reyes-García, V Vadez, T Huanca, Stress, immune function, and child health among the Tsimane' of lowland Bolivia (Abstract) *American Journal of Human Biology* 18(2):264-265. 2006.
- Tanner, S, WR Leonard, TW McDade, V Reyes-García, T Huanca, V. Vadez, Intestinal helminth infections and anthropometric status among Tsimane' adults in Bolivia (Abstract) *American Journal of Human Biology* 18(2):276-277. 2006.
- Sharrock, K., T.W. McDade, W.R. Leonard, V. Reyes-García, V. Vadez, R. Godoy, T. Huanca. Leptin, nutritional status, and child growth among the Tsimane' of lowland Bolivia (Poster). *American Human Biology Meetings*, March 2006.
- McDade TW, V Reyes-García, WR Leonard, S Tanner, C Nyberg, V Vadez, R Godoy, T Huanca Ethnoecological knowledge and child health in lowland Bolivia (Abstract) *American Journal of Physical Anthropology Suppl* 42:128. 2006.
- Tanner S, T Huanca, V Reyes-García, V Vadez, WR Leonard, TW McDade, Culture change and helminthiasis among the Tsimane' of lowland Bolivia. (Abstract) *American Journal of Physical Anthropology Suppl* 42:174. 2006.
- Godoy, R., Gurven M., Byron E., Reyes-García V., Keough J., **Vadez V.**, Wilkie D., Leonard W.R., Apaza L., Huanca T., Perez E. 2004. Do markets increase economic inequalities? A test of the Kuznets hypothesis among horticultural and foraging villages of the Bolivian rain forest. *Human Ecology*. In press.
- Vadez V.**, and Reyes-García V. 2004. Almost ten years since decentralization laws in Bolivia: Status quo or improvement for the lowland indigenous people? Evidences from the Tsimane' Amerindians of the Beni. Working paper, UNDP, Bolivia
- Godoy, R., Byron E., Reyes-García V., Leonard W.R., Patel K., Apaza L., Pérez E., **Vadez V.**, Wilkie D. 2004. Patience in a foraging-horticultural society: A test of competing hypotheses. *Journal of Anthropological Research*. In press.
- Godoy, R., Reyes-García V., **Vadez V.**, Leonard W.R., Huanca T. 2004. Within-population variability in adult nutritional status in the Bolivian Amazon: Contemporary small-scale, pre-industrial societies and anthropometric history. *Economics and Human Biology*. In press.
- Reyes-García, V., Byron E., Godoy R., **Vadez V.**, Apaza L., Pérez E., Leonard W.R., Wilkie D.:2004. Measuring culture as shared knowledge: Do data collection formats matters? Cultural knowledge of plant uses among the Tsimane' Amerindians of Bolivia. *Field Methods* 16(2), 135-156.
- Reyes-García, V., Godoy R., **V. Vadez**, Apaza L., Byron E., Huanca T., Leonard W.R., Pérez E., and Wilkie D. 2003. Is ethnobotanical knowledge held communally? Evidence from Bolivian Amerindians. *Science* vol 299, 1707.

### Dissertation

- Vadez, V.** 1990. Influence de la salinité sur la répartition nodulaire du malate chez le soja et sur la réponse de l'ARA à l'oxygène. DEA, 30 p.
- Vadez, V.** 1996. Variabilité génétique de la fixation d'azote sous carence en phosphore chez le haricot: relations avec l'efficacité d'utilisation du P et la perméabilité nodulaire à l'oxygène. Thèse de

doctorat, 135 p.

### **Book chapters**

**Vadez V** 2007. Development of drought and salinity tolerant crop varieties. In: Food and Water security, U Aswathanarayana (ed.), Taylor and Francis Group, Leiden, The Netherlands.

**Vadez V**, Hash CT, Rizvi SMH, Bidinger FR, Banttee, K, Sharma KK, Devi J, Bhatnagar-Mathur P, Kashiwagi J, Krishnamurthy L, Hoisington D, Varshney RK, Gaur PM, Nigam SN, Rupakula A, Upadhyaya HD 2007. What is the scope for molecular breeding and genetic engineering to improve crops' drought tolerance? In: "Changing lives" Serageldin I and Masood E (eds), proceeding of the 4<sup>th</sup> BioVision Conference (2006), Biblioteca Alexandrina, Alexandria, Egypt

Varshney RK, Hoisington DA, Upadhyaya HD, Gaur PM, Nigam SN, Saxena, KB, **Vadez V**, Bhatia S, ARUNA R., Gowda MVC. 2006. Molecular breeding of grain legume crops of semi-arid tropics. *In* Genomics Assisted Crop Improvement. (Varshney, R.K. and Tuberosa R., eds.), Springer, in press.

Serraj, R., **Vadez V.**, Purcell L.C. and Sinclair T.R. 1999. Recent Advances in the Physiology of Drought Stress Effects on Symbiotic N<sub>2</sub> Fixation in Soybean. In: Highlights on Nitrogen Fixation Research, E. Martinez and G. Hernandez Eds.

Sinclair, T.R. and **Vadez V.** 1999. Physiological traits for crop improvement in low-nutrient environment. *In*: Food security in nutrient stressed environments, exploiting plants' genetic capabilities: Summary and recommendations of an International Workshop, 27-30 Sep 1999, ICRISAT, Patancheru, India.

Drevon, J.-J., Derensart C., Roy G., Serraj R. and **Vadez V.** 1994. Les réponses des échanges gazeux nodulaires à l'oxygène permettent de mieux comprendre diverses limitations de la fixation symbiotique de l'azote. In: Recent Development in Biological Nitrogen Fixation Research in Africa. M. Sadiki and A. Hilali (Eds), IAV Hassan II, Rabat, Morocco, pp. 403-412.

### **Poster abstracts**

Valluru, R, Rizvi R, Hash C.T., **Vadez V.** Microdosing, an efficient phosphorus application strategy to improve seedling establishment IN pearl millet HYBRIDS (*Pennisetum americanum* L.) under nutrient stressed environments. Conference "Plant Nutrition meets Plant Breeding". Universität Hohenheim, Stuttgart 26 - 28. September 2006.

**Vadez V.**, Devi, M.J., Bhatnagar-Mathur, P., *Serraj* R., Sharma K.K.. Evaluation and Deployment of Transgenic Drought-Tolerant Groundnut at ICRISAT. Poster presented at the Annual Review Meeting of the Generation CP, Sao Paulo, Brasil, 12-16 Sept 2006.

**Vadez V.**, Krishnamurthy L., Varshney R.K., *Serraj* R., Devi M.J., Nigam S.N., Aruna R., Moss B., Seetha Kannan., Hoisington D., Rupa K., Chandra S.. Variation in transpiration efficiency in a groundnut (*Arachis hypogaea* L.) mapping population Poster presented at the Annual Review Meeting of the Generation CP, Sao Paulo, Brasil, 12-16 Sept 2006.

**Vadez V.**, Krishnamurthy L., Gaur P.M., Upadhyaya H.D., Hoisington D., Varshney R.K.. Genetic variability for salinity tolerance in chickpea. 3<sup>rd</sup> International Conference on Legume Genomics and Genetics, Brisbane, Australia 9-13 April, 2006.

**Vadez V**, Krishnamurthy L, Gaur PM, Upadhyaya HD, Hoisington D, Varshney RK (2006) Genetic variability for salt tolerance in chickpea. 3<sup>rd</sup> International Conference on Legume Genomics and Genetics, Brisbane, Australia, 9-13 April 2006, Abstract, p. 108

Devi MJ, Bhatnagar-Mathur P, **Vadez V**, Anwar SY, Yamaguchi-Shinozaki K and Sharma KK. Performance of transgenic groundnut expressing the DREB1A gene under drought stress conditions in the greenhouse. Poster presented at the IV International Food Legume Research Conference, Delhi 18-22th October, 2005.

Rizvi SMH, Serraj R, Bidinger FR, Sharma A, Nijhawan DC, Yadav RS, Bhasker Raj AG, Howarth CJ, **Vadez V** and Hash CT. 2005. Field assessment of backcross-derived hybrids validates a major pearl millet drought tolerance QTL. Pages 219–220 *in* Abstracts, International Conference on Sustainable Crop Production in Stress Environments: Management and Genetic Options, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, (M.P.), India, February 9–12, 2005.

Rizvi, R., Serraj, R., Hash, C.T. and **Vadez, V.** 2005. Screening for P acquisition from rock phosphate in pearl millet. Page 255 *in* Abstracts, International Conference on Sustainable Crop Production in Stress Environments: Management and Genetic Options, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur (M.P.), India, February 9-12, 2005

**Vadez V**, Kashiwagi J, Krishnamurthy L, Serraj R, Sharma KK, Devi J, Bhatnagar-Mathur P, Hoisington D, Chandra S, Gaur PM, Nigam SN, Rupakula A, Upadhyaya HD, Hash CT, Rizvi SMH. Recent advances in drought research at ICRISAT: Using root traits and rd29a::DREB1A to increase water use and water use efficiency in drought-prone areas. Poster presented at the Interdrought II conference, Rome 24-28 September 2005

Hash CT, Reddy AR, Chandra Sekhar A, Reddy LVB, Reddy MK, Reddy PS, Rizvi SMH, **Vadez V**, Jayashree B, and Senthilvel S. Generating stress response enriched ESTs targeting a major drought tolerance QTL in pearl millet. Poster presented at the Interdrought II conference, Rome 24-28 September 2005.

Srivastava N, **Vadez V**, Krishnamurthy L, Saxena KB, Nigam SN, and Rupakula A. Screening for Salinity Tolerance in Pigeonpea and Groundnut. Paper presented at the IV International Food Legume Research Conference, Delhi 18-22th October, 2005.

Hash CT, Rizvi SMH, Serraj R, Bidinger FR, **Vadez V**, Sharma A, Howarth CJ and Yadav RS. Field Assessment of Backcross-derived Hybrids Validates a Major Pearl Millet Drought Tolerance QTL. Paper presented at the Crop Science Society of America Congress, Seattle June 05.

Rizvi SMH, Sharma A, Yadav RS, Serraj S, **Vadez V**, Bidinger FR, Bhaskar Raj AG, Howarth CJ, Yadav OP, Hash CT. Field trial validation of a terminal drought tolerance QTL in pearl millet. Paper presented at the XVII Botanical Congress, Vienna, July 16-20, 2005.

Hash CT, Rizvi SMH, Serraj R, Bidinger FR., **Vadez V**, Sharma A, Howarth CJ and Yadav RS. Field Assessment of Backcross-derived Hybrids Validates a Major Pearl Millet Drought Tolerance QTL. Paper presentation at the International Crop Science Society of America Conference, Seattle, October 2004.

Lindsay K.M., Miller A., Aiello M.O., Leonard W.R., McDade T., Godoy R., Reyes-García V., **Vadez V.**, and Huanca T. 2003. Variation in hemoglobin levels and rates of anemia among the Tsimane' of lowland Bolivia. American Journal of Human Biology 17:271.

McDade, T., Leonard W.R., Burhop J., Reyes-García V., **Vadez V.**, Huanca T., and Godoy R. 2003. Acculturation, C-reactive protein, and child growth in lowland Bolivia. American Journal of Human Biology 15:273-274.

McDade, T., Leonard W.R., Reyes-García V., **Vadez V.**, Huanca T., and Godoy R. 2003. Physical Growth and Nutritional Status of Tsimane' Amerindian Children of Lowland Bolivia. American Journal of Physical Anthropology.

**Vadez V.**, Serraj R., V., Sinclair T.R., Purcell L.C. 1998. Recent Advances in the Physiology of Drought Stress Effects on Symbiotic N<sub>2</sub> Fixation in Soybean. Presentation at the North American Conference on Nitrogen Fixation. *In: Highlights on Nitrogen Fixation Research*, E. Martinez and G. Hernandez Eds.

**Vadez V.**, Serraj R., V., Sinclair T.R. 1999. Feedback inhibition of N<sub>2</sub> fixation in soybean is not linked only to asparagine. Botanical Congress, St Louis, MS. In: Proceeding of abstracts.

**Vadez V.**, Serraj R., V., Sinclair T.R. 1999. Mn delays the decline of N<sub>2</sub> fixation under water deficit in a sensitive soybean genotype. US Soybean Congress. *In: Proceeding of abstracts*.

**Vadez V.**, Sinclair T.R. 1999. N<sub>2</sub> fixation tolerance to drought is associated with ureide accumulation in shoot. American Society of Agronomy Meeting. Salt Lake City. *In: Proceeding of abstracts*.

### **Training and dissemination**

Reyes García, V., **Vadez V.**, Byron E., Godoy R., Apaza L., Pérez E. y Huanca T. 2004. El conocimiento etnobotánico de los Tsimane'. Investigación y Ciencia. 328:46-54.

Huanca, T., Reyes-García V., **Vadez V.** 2003. Pongamos en Práctica. Segundo Manual de Fortalecimiento para las Comunidades Tsimane'. La Paz: Campo Iris.

Huanca, T., Reyes-García V., **Vadez V.** 2002. Pongamos en Práctica. Primer Manual de Fortalecimiento para las Comunidades Tsimane'. La Paz: Campo Iris.

### **Under review and in preparation – Working papers**

**Vadez V.**, Reyes-García, V., Godoy R., Byron E., Huanca T., Leonard W.R.. 2004 Cash cropping, deforestation, farm technologies, and poverty: What are the connections? Household evidences from the Bolivian Amazon. Under review at Agriculture, Ecosystems and Environment.

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### **ANNEX 3. References.**

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