

CURRICULUM VITAE

NAME: Seyed Jalil Razavi

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EDUCATION: Ed.D. , Agricultural Education and Mechanization
Oklahoma State University, Stillwater, USA, 1990.

M.S., Agricultural Mechanization
Murray State University, Kentucky, USA, 1986.

B.S, Agricultural Mechanization
California State University, Chico, CA., USA, 1983.

POSITIONS HELD: Assist. Prof., Agricultural Machinery Engineering
Dept., College of Agriculture, Isfahan Univ. of
Technology, 1990 - Present.
Managing Director, Arya Agri-Tech. Engineering Co.
Isfahan Science and Technology Town, Iran, 2001 -present.
CEO, Isfahan Univ. Of Technology Multi-Purpose
Cooperative Co., 2000 - 2006.
Member, Agriculture Scientific Committee, Isfahan Science
and Technology Town, Iran, 2005 - 2007.
Educational and Research Farm Manager, College
of Agriculture, Isfahan Univ. of Technology, 2001- 2003.
Student Affairs Deputy, College of Agriculture,
Isfahan Univ. of Technology, 2000 - 2001.
Chair, Agricultural Machinery Engineering Dept., College of
Agriculture, Isfahan Univ. of Technology, 1993- 2001.

TEACHING RESPONSIBILITIES:

Courses Taught:

B.S. Level: Technical Drawing
General Farm Machinery
Internal Combustion Engine Technology
Harvesting Machinery

Agricultural Mechanization
Horticultural Machinery
Agricultural Education and Extension

M. S. Level: Test and Evaluation of Farm Machinery
Agricultural Extension
Agriculture Extension Program Planning and Management
Innovation & Adoption in Agriculture Extension

RESEARCH INTERESTS: Machinery Planning in Agriculture,
Harvesting Machinery, Sugar Cane Machinery
Development, Precision Irrigation System
Development and Mechanization

PROFESSIONAL MEMBERSHIP:

American Society of Agricultural & Biological Engineers
(ASABE)
Iranian Society of Agricultural Machinery and Mechanization
Iranian Society of Agricultural Extension and Education
Iranian Society of Solar Energy

RESEARCH PROJECTS:

2009 Project Leader: Design, Development and Evaluation of a Sugarcane Billet Planter with Overlap Planting Pattern.

2005 Project Leader: Evaluation and Optimization of a Sugar Cane Billet Planter.

2005 Project Leader: Design, Development and Evaluation of a Mixer Feeder for Dairy Farms.

2005 Project Leader: Design, Development and Evaluation of a Desilaging Machine for Dairy Farms.

2005 Project Leader: Design, Development and Evaluation of a Bagass Handling and Transport System.

2004 Project Leader: Design, Development and Evaluation of a Sugar Cane Leaf and Top Threshing Machine.

2003 Project Leader: Design, Development and Evaluation of a Barley Steam Roller.

2003 Project Leader: Design, Development and Installation of Material Handling Line in a Cereal Cleaning and Packing Station.

2002 Project Leader: Design, Development and Evaluation of a Forage Handling Machine for Dairy Farms.

2002 Project Leader: Design, Development and Evaluation of a Bagass Spreading Machine.

2001 Project Leader: Study of Current Status of Farm Machinery Manufacturing Industry in Iran.

1999 Project Leader: Study of Residue Effects on Yield and Soil Physical Properties in a Corn – Barley Crop Production System.

1997 Project Leader: Study of Different Harvesting Methods on Rice Grain Damage.

- 1994 Project Leader: Study of Current Rice Production Status in Isfahan Province, Iran.
- 1992 Project Leader: Study of Extension Personnel's Opinion on the Characteristics of an Effective Agricultural Extension System in Iran.

DESIGN PROJECTS:

- 2006 Design and Installation of Irrigation water transmission pipe (8 kilometers) in Isfahan Province, Iran.
- 2007 Design of Pressurized Irrigation on 600 hectares and 195 hectares of Installation in Isfahan province,Iran.
- 2005 Design of Pressurized Irrigation on 550 hectares and 80 hectares of Installation in Isfahan province,Iran.
- 2004 Design of Pressurized Irrigation on 380 hectares and 45 hectares of Installation in Isfahan province,Iran.
- 2003 Design of Pressurized Irrigation on 270 hectares and 15 hectares of Installation in Isfahan province,Iran.
- 2002 Design of Pressurized Irrigation on 150 hectares in Isfahan province,Iran.

M.S. THESIS SUPERVISION:

- 2011 **Supervisor:** Design, Development, and Evaluation of a Monitoring System for Mapping of Wheat Yield.
- 2010 **Supervisor:**Design, Development, and Evaluation of an Automatic Alfalfa and Straw Bale Pickup Unit.
- 2010 **Supervisor:**Design, Development, and Evaluation of a Sensor Based Variable Rate Sprinkler in Solid Set Irrigation System.
- 2009 **Supervisor:**Field Evaluation of a Gushenzhifu Rice Combine Platform and Design and Installation of a Hydraulic Driven Reel.
- 2008 **Supervisor:**Design, Development, and Evaluation of Sugarcane Residue Pickup Head.
- 2008 **Supervisor:** Design, Development, and Evaluation of Sugar Cane Billet Planter.
- 2008 **First Supervisor:** Design and Development of a Billet Arranging Device for a Sugar Cane Planter.
- 2010 **First Supervisor:**Study of the Effect of Some Blade and Crop Parameters on Specific Cutting Energy of Sugarcane.
- 2006 **First Supervisor:**Determination of Physical and Rheological Properties of Sugarcane Residue.
- 2006 **Supervisor:** Design and Development of a Billet Metering Mechanism with Overlap Planting Pattern for a Sugarcane Planter.
- 2005 **Supervisor:** Evaluation and Optimization of a Sugar Cane Billet Planter
- 2004 **Supervisor:** Evaluation and Redesign of a Rice Thresher.
- 2004 **First Supervisor:** Design, Development and Evaluation of a Silage Cutting Machine.
- 2004 **Co-Supervisor:** Continuous Sorting of Apples Based on Color and Size Using Machine Vision.

- 2003 **First Supervisor:** Study of Effective Parameters on Barley Processing For Design and Development of a Steam Roller.
- 2003 **Co- Supervisor:** Determination of Aerodynamic and Frictional Properties of Corn Silage.
- 1995 **Supervisor:** Study of the Effects of Agricultural Extension Programs on Irrigated Wheat Yields in Gorgan Province, Iran.
- 1994 **Supervisor:** Study of Factors Affecting Job Selection and Satisfaction Among Extension Workers in Isfahan Province, Iran.

PUBLICATIONS:

Abstracts:

- 2011 **Razavi, J.**, E. Bagvand and A. Hemmat. Development of a New System for Measuring the Coefficient of Dynamic Friction of Agricultural Crops. XVIIth World Congress of the International Commission of Agricultural and Biosystems Engineering (CIGR). Quebec City, Canada.
- 2011 **Razavi, J.**, E. Bagvand and A. Hemmat. Coefficient of Restitution of Sugarcane Billets Measurement Using an Instrumented Pendulum System. XVIIth World Congress of the International Commission of Agricultural and Biosystems Engineering (CIGR). Quebec City, Canada.
- 2005 Golastani, A. and **Jalil Razavi**. Technical Performance Evaluation of a Rice Thresher. 2nd Student Conference on Ag. Machinery Eng. Karaj, Iran.
- 2004 **Razavi, J.**, A. Mirlohi, R. Mohammadi and F.Nourbakhsh. Effect of Chemical Fertilizer and Manure on Single Cross 108 Corn Hybride Yield. 8th Agronomy Congress of Iran. Gilan University, Rasht, Iran.
- 2004 Mohammadi, R., A. Mirlohi, **J. Razavi** and F.Nourbakhsh. Barley Yield Comparison in Two Rotations of Corn-Barley and Rice-Barley Under Different Fertilizer Treatments. 8th Agronomy Congress of Iran. Gilan University, Rasht, Iran.
- 1998 **Razavi, Jalil**. Machinery Management Education as a Base for National Agricultural Mechanization Programs. 1st National Congress on Farm Machinery Eng. and Mechanization. Karaj, Iran.
- 1997 **Razavi, J.** and A. Mirlohi. Study of Current Rice Production Status in Isfahan Province, Iran. 6th National Rice Congress, Isfahan, Iran.

Proceedings:

- 2011 **Razavi, J.** and M. Dorostkar. Study of Effective Parameters on Barley Processing by a Steam Roller. 11th International Congress on Mchanization and Energy in Agriculture, Istanbul, Turkey.
- 2011 Kargarpour, H., **J. Razavi**, and M. R. Salar. Effect of Spatial distribution of nitrogen element on wheat crop performance based on yield monitoring system. 11th International Congress on Mechanization and Energy in Agriculture, Istanbul, Turkey.
- 2012 Kargarpour, H., **J. Razavi**, and M. R. Salar. Development and Field Evaluation of a Yield Monitoring System. XXXIV CIOSTA CIGR V Conference , Vienna, Austria.
- 2011 **Razavi, J.**, S. Saseghzadeh and Y. Chami. Design, Development and Evaluation of Automatic Alfalfa Hay and Straw Bale Pick- Up Mechanism. XXXIV CIOSTA CIGR V Conference , Vienna, Austria.

- 2011 **Razavi, J.** and Mohsen Hajhaidary . Development and Laboratory Evaluation of a Roller Mechanism for Sugar Cane Residue Harvesting. XXXIV CIOSTA CIGR V Conference , Vienna, Austria.
- 2011 Peimani, M., A. M. Amini, and **J. Razavi.** Evaluation of Factors Affecting the Productivity of Agricultural Mechanization Service Enterprises in Isfahan Province, Iran. XXXIV CIOSTA CIGR V Conference , Vienna, Austria.
- 2010 **Razavi, J.** and M. Namjoo. Determination of Forward Speed Effect on Planting Uniformity in a Sugarcane Billet Planter. XVIIth World Congress of the International Commission of Agricultural and Biosystems Engineering (CIGR). Quebec City, Canada.
- 2010 **Razavi, J.,** M. Kardany, and A. Masoumi. Effects of Some Cutting Blade and Plant Factors on Specific Cutting Energy of Sugarcane Stalk. XVIIth World Congress of the International Commission of Agricultural and Biosystems Engineering (CIGR).Quebec City, Canada.
- 2010 Rezaee Shahraki, A., **J. Razavi** and A. Gelareh. Design and Development of Capacitance Type Soil Moisture Sensor (FDR) for Controlling a Variable Rate Sprinkler in a Solid Set Irrigation System. Sixth National Congress of Farm Machinery Eng. and Mechanization. Karaj, Iran.
- 2010 Kamali, M., A. Maasoomi and **J. Razavi.**Modeling Water Absorption of Barley During Soaking. Sixth National Congress of Farm Machinery Eng. and Mechanization. Karaj, Iran.
- 2010 Rezaee Shahraki, A. and **J. Razavi.**Sensor Based Variable Rate Sprinkler. Fourth Regional Conference on Agricultural Research Findings. Sanandaj, Iran.
- 2009 Nouri, H., M. S. M. Amin, **J. Razavi,** W. Aimrun and A.R. Anuar. Urea and its Effect on Tuber Quality of Sugar Beet. International Advanced Technology Congress (ATCi), Kuala Lumpur, Malaysia.
- 2009 **Razavi, J.** and M. Namjoo. Design, Development and Evaluation of a Sugarcane Billet Planter Equipped with Metering Unit with Overlap Planting Pattern. XXXIII CIOSTA - CIGR V Conference, Reggio Calabria, Italy.
- 2009 Nouri, H., **J. Razavi,** ¹M.S.M. Amin, W. Aimrun, and T.S. Lee. Variability of Crop Properties Affected by Fertigation Distribution Pattern. XXXIII CIOSTA CIGR V Conference, Reggio Calabria, Italy.
- 2009 **Razavi, J.,** M. Faghiri, and A. Masoumi. Determination of Physical and Rheological Properties of Sugarcane Residue.XXXIII CIOSTA - CIGR V Conference, Reggio Calabria, Italy.
- 2009 **Razavi, J.,** I. Bagvand, and A. Hemmat. Design, Development and Evaluation of a Billet Arranging Mechanism for a Sugarcane Billet Planter. XXXIII CIOSTA-CIGR V Conference, Reggio Calabria, Italy.
- 2009 Nouri, H., **J. Razavi,** ¹M.S.M. Amin, W. Aimrun, and T.S. Lee. Application of Precision Farming Principles for Determination of Temporal and Spatial Variation in a Sugar Beet Field. Joint International Agricultural Conference.Wageningen, Netherlands.
- 2009 **Razavi, J.,** H. Nouri and A. Rezaee Shahraki. Application of Variable Rate Technology to Increase Agriculture Water Consumption Efficiency in Draught Stricken Regions. Second National Conference on Draught Effects and its Management Solutions. Isfahan, Iran.
- 2009 **Razavi, J.** and A. Mirlohi. Study of the Effects of Three Harvesting Methods on Rice Kernel Breakage in . 13th National Rice Conference, Rasht, Iran.
- 2008 Nouri, H., M. S. M. Amin, **J. Razavi,** W. Aimrun. Effect of Nitrogen Fertigation by Sprinkler Irrigation on the Variability of Crop Performance. International Conference on Science & Technology: Applications in Industry

- and Education. Pinang, Malaysia.
- 2008 **Razavi, J.** and A. Khani. Design, Development and Evaluation of a Metering Unit for a Sugarcane Billet Planter with Overlap Planting Pattern. International Conference on Agricultural Engineering and Industry Exhibition. Crete, Greece.
- 2006 Dorostkar, M. and **J. Razavi.** Design and Development of a Steam Roller for Barley Processing. Proceedings of 4th National Congress of Farm Machinery Eng. and Mechanization. Tabriz, Iran.
- 2006 Ghafoori, H., A. Hemmat and **J. Razavi.** Evaluation of a Cutterhead Unit for Silo Unloaders. Proceedings of 4th National Congress of Farm Machinery Eng. and Mechanization. Tabriz, Iran.
- 2006 Emamy, M., A. Hemmat and J. Razavi. Frictional Characteristics of Chopped Corn Silage. Proceedings of 4th National Congress of Farm Machinery Eng. and Mechanization. Tabriz, Iran.
- 2006 Reesi, A. and **J. Razavi.** Design, Fabrication and Calibration of a Test Rig. Proceedings of 4th National Congress of Farm Machinery Eng. and Mechanization. Tabriz, Iran.
- 2006 Reesi, A. and **J. Razavi.** Evaluation, Redesign and Modification of a Billet Dropping Control System in a Sugar cane Planter. Tabriz, Iran.
- 2005 Hemmat, A., M. Emamy, **J. Razavi** and A.A. Masoumi. Effect of Moisture Content and Particle Type on Terminal Velocity of Corn Silage. Proceedings of 2nd Intl. Conf. on Innovations in Food Processing Tech. and Eng. AIT, Bangkok, Thailand.
- 2003 Mirlohi, A., F. Nourbakhsh and **J. Razavi.** Effect of Adding Dairy Manure on Some Physical and Chemical Properties of Soil in a Rice-Barley and Corn-Barley Rotations. Proceedings of 8th Soil Congress of Iran, Gilan University, Rasht, Iran.
- 1999 **Razavi, Jalil.** Local Knowledge as a Source for Appropriate Technology and Sustainable Agriculture. Annual ASAE /CSAE Intl. Meeting, Toronto, Canada.

Papers:

- 2010 Nouri, H., M. S. M. Amin, **J. Razavi**, A.R. Anuar and W. Aimrun and S.C. Broujeni. Impact of Sprinkler Irrigation Uniformity on the Variability of Sugar Beet Leaf N Content. International Journal of Soil Science, 5(4),206-215.
- 2010 Nouri, H., M. S. M. Amin, **J. Razavi**, A.R. Anuar and W. Aimrun and S.Chavoshi Broujeni. Sugar Beet Performance Affected by Uniformity of N Fertigation. American Journal of Applied Sciences 7 (3): 366-370.
- 2009 Nouri, H., M. S. M. Amin, **J. Razavi**, A.R. Anuar and W. Aimrun. Precision Agriculture Concept: Distribution Pattern of Selected Soil and Crop Characteristics Influenced by Fertigation. European Journal of Scientific Research, Vol.32 No.2 (2009), pp.231-240.
- 2007 Hemmat, A., M. Emamy, **J. Razavi** and A.A. Masoumi. Terminal Velocity of Chopped Corn Silage and its Separate Fractions as affected by Moisture Content. Journal of Agricultural Sciences and Technology. Vol. 9, No.1.
- 2001 Mirlohi, A., M.A. Hajabassi, **J. Razavi** and E. Ghanaati. Corn Hybrids Responses to Two Methods of Tillage. J. Sci. & Tech. Agric. & Nat. Resources.. Vol. 5, No. 1.

Technical Reports:

- 2008 Design, Development and Evaluation of a Sugarcane Residue Harvesting Machine (Final Report). Arya Agri.-Tech. Eng. Co., Isfahan Science and Technology Town, Iran.
- 2008 Design, Development and Evaluation of a Mixer Feeder (Final Report). Arya Agri.-Tech. Eng. Co., Isfahan Science and Technology Town, Iran.
- 2008 Design, Development and Evaluation of a Desilaging Machine (Final Report). Arya Agri.-Tech. Eng. Co., Isfahan Science and Technology Town, Iran.
- 2008 Evaluation and Optimization of Billet Metering System in a Sugarcane Planter (Final Report). Isfahan University of Technology, Iran.
- 2008 Study of the Effect of Different Harvesting Methods on Two Local Isfahan Rice Variety Grain Damage (Final Report). Isfahan University of Technology, Iran.
- 2007 Design, Development and Evaluation of a Bagass Transportation System (Final Report). Arya Agri.-Tech. Eng. Co., Isfahan Science and Technology Town, Iran.
- 2005 Pressurized Irrigation Standards: A Handbook for Irrigation Specialists and Installers. Isfahan Science and Technology Town, Iran.
- 2001 Design, Development and Evaluation of a Steam Roller for Barley Processing (Final Report). Arya Agri.-Tech. Eng. Co., Isfahan Science and Technology Town, Iran.
- 2001 Design, Development and Evaluation of a Corn Silage Handling System for Dairy Farms (Final Report) Arya Agri.-Tech. Eng. Co., Isfahan Science and Technology Town, Iran.
- 2001 Design, Development and Evaluation of a Bagass Spreading Machine (Final Report). Arya Agri.-Tech. Eng. Co., Isfahan Science and Technology Town, Iran.
- 1992 Study of Extension Personnel's Opinion on an Effective Agricultural Extension System Characteristics in Iran (Final Report). Ministry of Jihad Reconstruction, Iran.

Patents:

- 2011 Sugarcane Billet Planter with Overlap Planting Pattern. Iranian Patent Office. Patent No. 71787.
- 2011 Multipurpose Internal Clutch for Agricultural Machinery Power Train Systems. Iranian Patent Office. Patent No. 61156.
- 2010 Sugarcane Residue Harvesting Head. Iranian Patent Office. Patent No. 71801.
- 2007 Stationary Vertical Mixer Feeder. Iranian Patent Office. Patent No. 45744.
- 2007 Sugarcane Metering Device for a Billet Planter. Iranian Patent Office. Patent No. 43313.
- 2006 Tractor Powered Vertical Feeder Mixer. Iranian Patent Office. Patent No. 35405.

Supervised Students:

- 1) M. Sc. Students : 18
- 2) Final B.Sc. Projects: 105