



Winnipeg, MB, Canada

March 2019

AGROBASE Reference Publications

Refereed Journals

Piepho, H.P., Richter, C., and Williams, E. 2008. Nearest Neighbour Adjustment and Linear Variance Models in Plant Breeding Trials. *Biometrical Journal* 50:164-189.

Yang, R.C., Ye, T.Z., Blade, S.F., Bandara, M. 2004. Efficiency of Spatial Analyses of Field Pea Variety Trials. *Crop Sc.* 44:49-55.

Stroup, W.W., P.S. Baenziger, and D.K. Mulitze. 1994. Removing spatial variation from wheat yield trials: A comparison of methods. *Crop Science* 34:62-66.

Stroup, W.W., and Mulitze, D.K. 1991. Nearest neighbour adjusted best linear unbiased prediction. *American Statistician* 45(3):194-200.

Mulitze, D. K. 1990. AGROBASE/4: A Microcomputer Database Management and Analysis System for Plant Breeding and Agronomy. *Agron. J.* 82:1016-1021.

Conference Proceedings

Mulitze, D.K., March 2010. Relational Software for Plant Breeding: Empowering plant breeders in a world of declining fiscal and human resources. Keynote address. Eighth Southern African Plant Breeder's Association Symposium, Stellenbosch, South Africa.

Mulitze, D.K. July/August 1996. Analysis of oat and barley plant breeding data using AGROBASE 96 for Windows. V International Oat Conference and VII International Barley Genetics Symposium, University of Saskatchewan, Saskatoon, Canada.

Journal Articles Citing Usage of AGROBASE

Performance of Vernonia as an Alternative Industrial Oil Crop in Limpopo Province of South Africa
Hussein Shimelis, Phatu W. Mashela and Arno Hugo *Crop Science* 2008 48: 1: 236-242

...*AGROBASE* (2005)...

Re-examining the Relationship between Degree of Relatedness, Genetic Effects, and Heterosis in Maize
E. A. Lee, M. J. Ash and B. Good *Crop Science* 2007 47: 2: 629-635

...). *The RCBD involved the randomization option for nearest neighbor analysis (AGROBASE IV software, Agronomix Software, Portage la Prairie, MB; ...*

Registration of 'Vision 45' Wheat L. Liu, M. D. Barnett, C. A. Griffey, S. Malla, W. S. Brooks, J. E. Seago, W. E. Thomason, E. Rucker, H. D. Behl, R. M. Pitman, D. W. Dunaway, M. E. Vaughn, J. T. Custis, B. Seabourn, R. Chen, M. Fountain, D. Marshall, C. Cowger, S. Cambron, Y. Jin, B. R. Beahm, T. H. Hardiman, C. J. Lin, D. F. Mennel and D. L. Mennel *Journal of Plant Registrations* 2015 9: 3: 338-344

...*Analysis of variance was conducted on data from individual locations and years and across locations and years in Virginia Tech tests using AGROBASE 20 (...using AGROBASE Generation II SQL version.....*

Registration of 'Lenetah' Spring Barley D. E. Obert, C. P. Evans, D. M. Wesenberg, J. M. Windes, C. A. Erickson, E. W. Jackson, X. Chen and J. C. Whitmore *Journal of Plant Registrations* 2008 2: 2: 85-87

*...All statistical analyses were performed using **AGROBASE** Generation II software (Agronomix ...*

Combining Ability and Performance of Cotton Germplasm with Diverse Seed Oil Content Neha Kothari, B. Todd Campbell, Jane K. Dever and Lori L. Hinze *Crop Science* 2016 56: 1: 19-29

*.....traits, and fiber traits used to estimate GCA and SCA was completed using the block-entry model of the general linear model (GLM) procedure as implemented in **AGROBASE** Generation II... ..**AGROBASE**..*

Registration of 'LCS Wizard' Wheat L. Liu, M. D. Barnett, C. A. Griffey, S. Malla, W. S. Brooks, J. E. Seago, H. Butler, W. E. Thomason, E. G. Rucker, H. D. Behl, R. M. Pitman, D. W. Dunaway, M. E. Vaughn, J. T. Custis, B. Seabourn, R. Chen, M. Fountain, D. Marshall, R. A. Graybosch, L. A. Divis, L. E. Hansen, C. Cowger, S. Cambron, Y. Jin, B. R. Beahm, T. H. Hardiman, C. J. Lin, D. F. Mennel and D. L. Mennel *Journal of Plant Registrations* 2016 10: 1: 28-35

*...Analysis of variance was conducted on data from individual locations and years and across locations and years in Virginia Tech tests using **AGROBASE** 20 (), **AGROBASE** Generation II SQL version 36.5.1 (...*

Increasing Genomic-Enabled Prediction Accuracy by Modeling Genotype × Environment Interactions in Kansas Wheat Diego Jarquín, Cristiano Lemes da Silva, R. Chris Gaynor, Jesse Poland, Allan Fritz, Reka Howard, Sarah Battenfield and Jose Crossa *The Plant Genome* 2017 10: 2:

*...). In all these generations, yield was measured in plots measuring 1.5 by 4.5 m. All individual yield trials were analyzed with **AGROBASE** Generation II software [**AGROBASE** Generation II 2014,.....*

Registration of 'Merem' Spring Malting Barley G. Hu, D. E. Obert, C. P. Evans, K. Satterfield, S. Ellberg, J. M. Marshall, A. Budde and C. Martens *Journal of Plant Registrations* 2014 8: 3: 233-235

*...All statistical analyses for agronomic and quality characteristics were performed using **AGROBASE** Generation II software (...*

Registration of 'Secretariat' Winter Barley W. S. Brooks, M. E. Vaughn, G. L. Berger, C. A. Griffey, W. E. Thomason, R. M. Pitman, S. Malla, J. E. Seago, D. W. Dunaway, E. G. Rucker, H. D. Behl, B. R. Beahm, P. W. Browning, D. G. Schmale, N. McMaster, T. H. Hardiman, J. T. Custis, D. E. Starner, S. A. Gulick, S. R. Ashburn, E. H. Jones, D. S. Marshall, M. O. Fountain, T. D. Tuong, M. J. Kurantz, R. A. Moreau and K. B. Hicks *Journal of Plant Registrations* 2016 10: 3: 217-222

*...) or **AGROBASE** Generation II (ver. 16.2.1; Analysis of variance for the UWBYN data was conducted by year with **AGROBASE** Generation II, with genotypes and locations treated as fixed.....*

Registration of 'NI04421' Hard Red Winter Wheat P. S. Baenziger, R. A. Graybosch, T. Regassa, L. A. Nelson, R. N. Klein, D. K. Santra, D. D. Baltensperger, J. M. Krall, L. Xu, S. N. Wegulo, Y. Jin, J. Kolmer, Ming-Shun Chen and Guihua Bai *Journal of Plant Registrations* 2012 6: 1: 54-59

*.....and advanced breeding trials were analyzed with an incomplete block design (incomplete block size = 5) within blocks (block size = 60) with **AGROBASE** GEN II (Agronomix Software, Inc. Winnipeg,.....*

Use of Sister-Lines and the Performance of Modified Single-Cross Maize Hybrids E. A. Lee, A. Singh, M. J. Ash and B. Good *Crop Science* 2006 46: 1: 312-320

*.....(2850 OCHUs) in 2002, using a randomized complete block design (RCBD) with two replications at each location. The RCBD involved the randomization option for nearest neighbor analysis (**AGROBASE**.....*

Registration of 'NE05548' (Husker Genetics Brand Panhandle) Hard Red Winter Wheat P. S. Baenziger, R. A. Graybosch, T. Regassa, R. N. Klein, G. R. Kruger, D. K. Santra, L. Xu, D. J. Rose, S. N. Wegulo, Y. Jin, J. Kolmer, G. L. Hein, M.-S. Chen, G. Bai, R. L. Bowden and J. Poland *Journal of Plant Registrations* 2016 10: 3: 276-282

*...The elite and advanced breeding trials were analyzed annually using an incomplete block design within blocks (using **AGROBASE** GEN II [Agronomix Software, Inc.]; ...procedure (NNA) of **AGROBASE**.....*

Registration of 'NE06545' (Husker Genetics Brand Freeman) Hard Red Winter Wheat P. S. Baenziger, R. A. Graybosch, T. Regassa, R. N. Klein, G. R. Kruger, D. K. Santra, L. Xu, D. J. Rose, S. N. Wegulo, Y. Jin, J. Kolmer, G. L. Hein, M.-S. Chen, G. Bai, R. L. Bowden and J. Poland *Journal of Plant Registrations* 2014 8: 3: 279-284

.....and advanced breeding trials were analyzed annually using an incomplete block (incomplete block size = 5) design within blocks (block size = 60; using **AGROBASE**GEN II, Agronomix Software, Inc.....

Nature of the Genetic Variation in an Elite Maize Breeding Cross A. K. Singh, T. K. Coleman, M. T. Tollenaar and E. A. Lee *Crop Science* 2011 51: 1: 75-83

.....x CG102 and CG108 x CG102, and the modified-single cross (CG60 x CG108) x CG102. Yield trials were organized as a randomized complete block design with nearest-neighbor option using **AGROBASE**.....

Pollen-Mediated Gene Flow in California Cotton Depends on Pollinator Activity Allen E. Van Deynze, Frederick J. Sundstrom and Kent J. Bradford *Crop Science* 2005 45: 4: 1565-1570

.....; values for samples not confirmed by PCR tests were not adjusted. Data were subjected to analysis of variance by **AGROBASE** v.II (Agronomix Inc., Winnipeg, MB, Canada). To address heterogeneity...

Genotype x Environment Interaction of Maize Grain Yield Using AMMI Biplots Thokozile Ndhlela, Liezel Herselman, Cosmos Magorokosho, Peter Setimela, Charles Mutimaamba and Maryke Labuschagne *Crop Science* 2014 54: 5: 1992-1999

.....first subjected to ANOVA to determine the effects of G x E interaction for grain yield. Analysis of variance was performed on a plot basis and pooled over locations and seasons using **AGROBASE**

Increasing Hard Winter Wheat Yield Potential via Synthetic Hexaploid Wheat: II. Heritability and Combining Ability of Yield and its Components Jessica K. Cooper, Amir M. H. Ibrahim, Jackie Rudd, Dirk Hays, Subas Malla and Jason Baker *Crop Science* 2013 53: 1: 67-73

...). Using **AGROBASE** II (...

Registration of 'Kardia', a Two-Rowed Spring Food Barley G. Hu, C. P. Evans, K. Satterfield, S. Ellberg, J. M. Marshall and D. E. Obert *Journal of Plant Registrations* 2016 10: 3: 213-216

...All statistical analyses for agronomic and β -glucan characteristics were performed with **AGROBASE** Generation II software (...

Identification and Monosomic Analysis of Tan Spot Resistance Genes in Synthetic Wheat Lines (*Triticum turgidum* L. x *Aegilops tauschii* Coss.) Wuletaw Tadesse, Sai L.K. Hsam, Gerhard Wenzel and Friedrich J. Zeller *Crop Science* 2006 46: 3: 1212-1217

... analyses were performed using **AGROBASE** 20 software (...

Registration of 'Florida-07' Peanut D. W. Gorbet and B. L. Tillman *Journal of Plant Registrations* 2009 3: 1: 14-18

...Head-to-head comparisons were generated using **AGROBASE** Generation II, Varietal Comparisons Module (Agronomix Software, Inc., Winnipeg, MB, Canada, ...tests in Florida were analyzed using **AGROBASE**..

Interrelationships among Agronomic and Seed Quality Traits in an Interspecific Soybean Recombinant Inbred Population Mine S. Cicek, Pengyin Chen, M. A. Saghai Maroof and Glenn R. Buss *Crop Science* 2006 46: 3: 1253-1259

...**AGROBASE**, 2000...

Molecular Marker Diversity and Field Performance in Commercial Cotton Cultivars Evaluated in the Southwestern USA Jinfa Zhang, Y. Lu, R. G. Cantrell and E. Hughes *Crop Science* 2005 45: 4: 1483-1490

....., each of the plots was mechanically harvested for seed-cotton yield. The data were subjected to ANOVA using **AGROBASE** 21 (Agronomix Software Inc., MB, Canada). The means of fiber yield and.....

Registration of 'Dayn' Hard White Spring Wheat K. K. Kidwell, J. S. Kuehner, G. B. Shelton, V. L. DeMacon, S. Rynearson, X. M. Chen, S. O. Guy, J. M. Marshall, D. A. Engle, D. R. See, C. F. Morris and M. O. Pumphrey *Journal of Plant Registrations* 2018 12: 2: 222-227

.....Results were analyzed for the high-precipitation region to represent rainfed production areas with high yield potential. All statistical analyses were performed using **AGROBASE** Generation II....

Registration of the TCAP FAC-WIN6 Barley Panel for Genomewide Association Studies Araby R. Belcher, Ryan C. Graebner, Alfonso Cuesta-Marcos, Scott Fisk, Tanya Filichkin, Kevin P. Smith, Victoria C. Blake and Patrick M. Hayes *Journal of Plant Registrations* 2015 9: 3: 411-418

.....means were made in **AGROBASE** Generation II (Agronomix, Software, Inc.), except in the case of secondary check missing data. If any secondary check data were missing, then (i) for Method 1...**AGROBASE**...

Relationships between Root-Knot Nematode Resistance and Plant Growth in Upland Cotton Jinfa Zhang, C. Waddell, C. Sengupta-Gopalan, C. Potenza and R. G. Cantrell *Crop Science* 2006 46: 4: 1581-1586

.....for each plant and its corresponding check. Data for experimental and check plants were separately subjected to analysis of variance (ANOVA) using **AGROBASE21** (Agronomix Software Inc., Winnipeg.....

Additional Sources of Soybean Germplasm Resistant to Two Species of Root-Knot Nematode Donna K. Harris, H. Roger Boerma, Richard S. Hussey and Steven L. Finnerty *Crop Science* 2003 43: 5: 1848-1851

....., the number of galls were counted on each plant to accurately quantify the degree of resistance. Data for galling were analyzed by analysis of variance using **AGROBASE** (Agronomix Software, Inc.

Registration of 'Julie' High β -Glucan Spring Barley D. E. Obert, A. Hang, G. Hu, C. Burton, K. Satterfield, C. P. Evans, J. M. Marshall and E. W. Jackson *Journal of Plant Registrations* 2013 7: 1: 1-4

...All statistical analyses for agronomic and β -glucan characteristics were performed with **AGROBASE** Generation II software (...)

Increasing Hard Winter Wheat Yield Potential via Synthetic Wheat: I. Path-Coefficient Analysis of Yield and Its Components Jessica K. Cooper, A.M.H. Ibrahim, J. Rudd, Subas Malla, Dirk B. Hays and Jason Baker *Crop Science* 2012 52: 5: 2014-2022

...) was used to analyze individual and combined locations as per RCBD. Using **AGROBASE** II (...)

Soybean Quantitative Trait Loci Conditioning Soybean Rust-Induced Canopy Damage Donna K. Harris, Hussein Abdel-Haleem, James W. Buck, Daniel V. Phillips, Zenglu Li and H. Roger Boerma *Crop Science* 2015 55: 6: 2589-2597

.....in Attapulugus, GA, in 2006, 2008, and 2009 were analyzed by ANOVA (assuming blocks, years, and RILs as random effects) using **AGROBASE** Generation II V 35 (Agronomix Software, Inc.,.....

Identification, Mapping, and Confirmation of a Soybean Gene for Bud Blight Resistance Vasilia A. Fasoula, Donna K. Harris, Matthew A. Bailey, Daniel V. Phillips and H. Roger Boerma *Crop Science* 2003 43: 5: 1754-1759

.....plots of Young and PI 416937. Since the virus infestation rate in the field was low, the scoring scale of 0 to 6 was used. Data were analyzed by ANOVA with **AGROBASE** software (Agronomix.....

A Southern Root-Knot Nematode Resistance QTL Linked to the T-Locus in Soybean Zachary P. Shearin, Steve L. Finnerty, E. Dale Wood, Richard S. Hussey and H. Roger Boerma *Crop Science* 2009 49: 2: 467-472

.....(assuming blocks and environments as random effects and lines as fixed effects) by ANOVA using **AGROBASE** software (Agronomix Software Inc., Winnipeg, MB, Canada). For each backcross.....

Geographic Distribution of Common and Dwarf Bunt Resistance in Landraces of *Triticum aestivum* subsp. *aestivum* J. Michael Bonman, Harold E. Bockelman, Blair J. Goates, Don E. Obert, Patrick E. McGuire, Calvin O. Qualset and Robert J. Hijmans *Crop Science* 2006 46: 4: 1622-1629

.....Davis included 248 accessions from Bakhtaran province in Iran and 1858 accessions from other areas of Iran. Values for the quantitative traits measured in the trial were adjusted with **AGROBASE**.....

The Role of Leaf Epicuticular Wax in the Adaptation of Wheat (*Triticum aestivum*L.) to High Temperatures and Moisture Deficit Conditions Suheb Mohammed, Trevis D. Huggins, Francis Beecher, Chris Chick, Padma Sengodan, Suchismita Mondal, Ashima Paudel, Amir M.H. Ibrahim, Michael Tilley and Dirk B. Hays *Crop Science* 2018 58: 2: 679-689

.....to calculate the regression slope (β) and the SD values for each RIL for leaf EW and different yield components. The **AGROBASE** generation II system (Agronomix Software, Inc., Winnipeg, MB,.....

TCAP FAC-WIN6 Elite Barley GWAS Panel QTL. II. Malting Quality QTL in Elite North American Facultative and Winter Six-Rowed Barley Identified via GWAS Araby R. Belcher, Alfonso Cuesta-Marcos, Kevin P. Smith and Patrick M. Hayes *Crop Science* 2018 58: 1: 120-132

*...Line means for GWAS were obtained by adjustments, when necessary, for Type 2 MAD data in **AGROBASE** Generation II (...)*

Maize Yield Potential and Density Tolerance V. H. Gonzalez, M. Tollenaar, A. Bowman, B. Good and E. A. Lee *Crop Science* 2018 58: 2: 472-485

*... (~1.5x conventional density). The density trials were organized as a randomized complete block design with nearest-neighbor option using **AGROBASE** IV software...*

Combining Abilities and Heterosis for Forage Yield among High-Yielding Accessions of the Alfalfa Core Collection H. S. Bhandari, C. A. Pierce, L. W. Murray and I. M. Ray *Crop Science* 2007 47: 2: 665-671

*.....following an adjacent residual approach in **AGROBASE** software (AGRONOMIX, Inc., Portage La Prairie NB, Canada). Corrected seasonal total forage yield data (i.e., the sum of the three harvests....)*

Heterosis and Combining Ability in a Diallel Cross of Ethiopian Mustard Inbred Lines Adefris Teklewold and Heiko C. Becker *Crop Science* 2005 45: 6: 2629-2635

*...s, a combining ability analysis was performed by **AGROBASE** software (Agronomix Software Inc., Winnipeg, Manitoba, Canada, 1999) following Method IV Model II of ...*

Wheat Cultivar Performance on Certified Organic Fields in Minnesota and North Dakota Patrick M. Carr, Herman J. Kandel, Paul M. Porter, Richard D. Horsley and Steve F. Zwinger *Crop Science* 2006 46: 5: 1963-1971
*.....**AGROBASE** 20 computer program (Agronomix Software, Inc., Winnipeg, MB). Stability values calculated using this method are the squares of the differences between an entry mean and the maximum mean....*

Registration of 'Xerpha' Wheat S. S. Jones, S. R. Lyon, K. A. Balow, M. A. Gollnick, K. M. Murphy, J. S. Kuehner, T. D. Murray, X. M. Chen, D. A. Engle and K. G. Campbell *Journal of Plant Registrations* 2010 4: 2: 137-140

*...-test procedure ($\alpha = 0.05$) of **AGROBASE** Generation 2, version 18.3.1 (Agronomix Software, Inc., Winnipeg, Canada). End-use quality data were analyzed by the Student's paired ...*

Diallel Analysis of Carbon Isotope Discrimination and Its Association with Forage Yield among Nine Historically Recognized Alfalfa Germplasms I. M. Ray, A. Segovia-Lerma and L. W. Murray *Crop Science* 2004 44: 6: 1970-1975

*...), as provided by **AGROBASE** Software (Agronomix Software, Inc., Portage la Prairie, NB, Canada). Adjusted Δ and biomass data were analyzed within and across years using Analysis III of ...*

Soybean Germplasm Accession Seedling Reactions to Soybean Rust Isolates from Georgia

David R. Walker, Donna K. Harris, Zachary R. King, Zenglu Li, Daniel V. Phillips, James W. Buck, Randall L. Nelson and H. Roger Boerma *Crop Science* 2014 54: 4: 1433-1447

*Correlation coefficients between the RI scores from the field studies and quantitative data from the greenhouse were calculated using **AGROBASE** Generation II (Agronomix Software, Inc....)*

Combining Ability and Heterosis for Forage Yield among Elite Alfalfa Core Collection Accessions with Different Fall Dormancy Responses A. H. Al Lawati, C. A. Pierce, L. W. Murray and I. M. Ray *Crop Science* 2010 50: 1: 150-158

*.....nearest-neighbor analysis (adjacent residuals method) in **AGROBASE** software, version 4 (Agronomix Software, Portage la Prairie, NB, Canada). Yield data were analyzed within each harvest, the.....*

Intra-Cultivar Variation for Seed Weight and Other Agronomic Traits within Three Elite Soybean Cultivars Vasilia A. Fasoula and H. Roger Boerma *Crop Science* 2007 47: 1: 367-373

*.....**AGROBASE** Software (Agronomix Software Inc., Winnipeg, Canada). For comparing the mean of a line with the mean of the check, the least significant difference (LSD) was calculated using the...*

Registration of JTN-5203 Soybean Germplasm with Resistance to Multiple Cyst Nematode Populations Prakash R. Arelli, Vincent R. Pantalone, Fred L. Allen, Alemu Mengistu and Lisa A. Fritz *Journal of Plant Registrations* 2015 9: 1: 108-114

.....an RCB experimental design and the Varietal Comparisons module of **AGROBASE** Generation II version 36.3.1 (Agronomix Software) to compare individual varieties across multiple years of testing.....

Registration of 'York' Peanut Daniel W. Gorbet and Barry L. Tillman *Journal of Plant Registrations* 2011 5: 3: 289-294

...Head-to-head comparisons and other statistical measures were generated using **AGROBASE** Generation II software (Winnipeg, Manitoba, Canada)

Registration of 'NE01643' Wheat P. S. Baenziger, B. Beecher, R. A. Graybosch, A. M. H. Ibrahim, D. D. Baltensperger, L. A. Nelson, Y. Jin, S. N. Wegulo, J. E. Watkins, J. H. Hatchett, Ming-Shun Chen and Guihua Bai *Journal of Plant Registrations* 2008 2: 1: 36-42

.....were analyzed as randomized complete blocks and replicated trials with three or more replications were analyzed using the nearest neighbor (NNA) procedure of **AGROBASE** 21 (Agronomix Software,.....

Developing High-Protein, High-Yield Soybean Populations and Lines E. R. Cober and H. D Voldeng *Crop Science* 2000 40: 1: 39-42

.....higher productivity. The set of lines tested in 1997 was analyzed as a randomized complete block by **AGROBASE** 98 (Agronomix Software Inc., Winnipeg, MB) with location, replicate, and line.....

Registration of 'Nelson' Annual Ryegrass L. R. Nelson, J. Crowder and F. M. Rouquette *Journal of Plant Registrations* 2011 5: 1: 45-48

....., respectively, each year. A subsample was collected to determine the percentage of oven-dried dry mater for each entry. Data were analyzed with **AGROBASE** Generation II (Agronomix Software...

Registration of 'Babe' Wheat K. K. Kidwell, G. B. Shelton, V. L. DeMacon, X. Chen, S. O. Guy, J. S. Kuehner, B.-K. Baik, D. A. Engle and N. A. Bosque-Pérez *Journal of Plant Registrations* 2012 6: 2: 156-160

.....from 2006 to 2010 were analyzed using the general lattice (ALS) procedure in **AGROBASE** Generation II, version 18.3.1 (Agronomix Software, Winnipeg, Canada). Since four major wheat-producing.....

Registration of 'Kelse' Wheat K. K. Kidwell, G. B. Shelton, V. L. DeMacon, X. M. Chen, J. S. Kuehner, B. Baik, D. A. Engle, A. H. Carter and N. A. Bosque-Pérez *Journal of Plant Registrations* 2009 3: 3: 269-272

.....data from 2006 to 2008 were analyzed using the general lattice (ALS) procedure of **AGROBASE** Generation 2, version 18.3.1 (Agronomix Software, Inc. Winnipeg, Canada). Since four major wheat.....

Registration of 'UA 5612' Soybean P. Chen, C. P. Gray, T. L. Hart, M. Orazaly, J. C. Rupe, D. G. Dombek, R. D. Bond, T. Kirkpatrick, R. T. Robbins and L. O. Ashlock *Journal of Plant Registrations* 2014 8: 2: 145-149

.....Breeding Program was performed using **AGROBASE** Generation-II (Agronomix Software, Inc.); the analyses of the USDA Southern Uniform/Preliminary Tests and the state variety tests were performed using.....

Genotype × Environment Interactions of Hybrid and Varietal Rice Cultivars for Grain Yield and Milling Quality Sterling B. Blanche, Herry S. Utomo, Ida Wenefrida and Gerald O. Myers *Crop Science* 2009 49: 6: 2011-2018

... and CSM were obtained using **AGROBASE** Gen II (Agronomix Software Inc., Winnipeg, MB, Canada).

Registration of 'Sprinter' Hard Red Winter Wheat A. H. Carter, K. K. Kidwell, V. DeMacon, K. A. Balow, G. B. Shelton, R. W. Higginbotham, X. M. Chen, D. A. Engle, B. Baik and C. F. Morris *Journal of Plant Registrations* 2015 9: 2: 196-200

.....the general lattice (ALS) procedure in **AGROBASE** Generation 2, version 35.15.1 (Agronomix Software). Since four major wheat-producing regions with distinct agroclimatic conditions are present.....

Registration of 'Eve' Winter Hulless Barley W. S. Brooks, M. E. Vaughn, G. L. Berger, C. A. Griffey, W. E. Thomason, J. J. Paling, R. M. Pitman, D. W. Dunaway, R. A. Corbin, J. C. Kenner, E. G. Hokanson, H. D. Behl, B. R. Beahm, S. Y. Liu, P. G. Gundrum, A. M. Price, D. E. Brann, D. L. Whitt, J. T. Custis, D. E. Starner, S. A. Gulick, S. R. Ashburn, E. H. Jones, D. S. Marshall, M. O. Fountain, T. D. Tuong, D. P. Livingston, R. Premakumar, M. J. Kurantz, R. A. Moreau and K. B. Hicks *Journal of Plant Registrations* 2013 7: 1: 5-11

....., genotypes, locations and years were treated as fixed effects. Analysis of variance for the UWBYN data was conducted with **AGROBASE** Generation II (ver. 16.2.1, Agronomix Software) with.....

Registration of R10-5086 and R11-6870 Soybean Germplasm Lines with Exotic Pedigree Pedro Manjarrez-Sandoval, Pengyin Chen, Liliana Florez-Palacios, Moldir Orazaly, Chengjun Wu and Thomas E. Carter Journal of Plant Registrations 2018 12: 1: 118-123

.....Breeding Program were analyzed using **AGROBASE** Generation II (Agronomix Software, Inc.). Data of the USDA Southern Uniform Soybean Tests and USB Diversity trials were analyzed using SAS software.

Registration of 'Jasper' Soft White Winter Wheat A. H. Carter, S. S. Jones, K. A. Balow, G. B. Shelton, A. B. Burke, S. Lyon, R. W. Higginbotham, X. M. Chen, D. A. Engle, T. D. Murray and C. F. Morris Journal of Plant Registrations 2017 11: 3: 263-268

.....were analyzed using the moving means procedure with replicated check cultivars every 10 plots in **AGROBASE** Generation 2, version 37.2.4 (Agronomix Software). Since four major wheat-producing.....

Registration of 'UA 5814HP' Soybean with High Yield and High Seed-Protein Content P. Chen, L. Florez-Palacios, M. Orazaly, P. Manjarrez-Sandoval, C. Wu, J. C. Rupe, D. G. Dombek, T. Kirkpatrick and R. T. Robbins Journal of Plant Registrations 2017 11: 2: 116-120

.....the Arkansas Soybean Breeding Program, analyses of variance for all traits were done with **AGROBASE** Generation-II (Agronomix Software, Inc., Winnipeg, MB). In all cases, genotype and environments.....

Registration of 'Lynx' Winter Pea Rebecca J. McGee, Howard Nelson and Kevin E. McPhee Journal of Plant Registrations 2013 7: 3: 261-264

..... Statistical analysis of seed yield and all morphological data was performed using the **AGROBASE** Generation II (Agronomix Software) Generalized Linear Model Analysis of Variance module. Means.....

Genetic Improvement of New Mexico Acala Cotton Germplasm and Their Genetic Diversity J. F. Zhang, Y. Lu, H. Adragna and E. Hughs Crop Science 2005 45: 6: 2363-2373

.....of the plots was mechanically harvested for seed-cotton yield estimates. The data were subjected to an analysis of variance (ANOVA) manually or by SAS (SAS, Cary, NC) or **AGROBASE** 21 (Agronomix....

Registration of 'Puma' Soft White Winter Wheat A. H. Carter, S. S. Jones, X. Cai, S. R. Lyon, K. A. Balow, G. B. Shelton, R. W. Higginbotham, X. M. Chen, D. A. Engle, B. Baik, S. O. Guy, T. D. Murray and C. F. Morris Journal of Plant Registrations 2014 8: 3: 273-278

.....the general lattice (ALS) procedure in **AGROBASE** Generation 2, version 35.15.1 (Agronomix Software). Since four major wheat-producing regions with distinct agroclimatic conditions are present...

B. L. Tillman and D. W. Gorbet Journal of Plant Registrations 2009 3: 2: 138-142

...Paired comparisons were generated using **AGROBASE** Generation II, Varietal Comparisons Module (Agronomix Software, Inc., Winnipeg Manitoba Canada

QTL Associated with Yield in Three Backcross-Derived Populations of Soybean P. S. Guzman, B. W. Diers, D. J. Neece, S. K. St. Martin, A. R. LeRoy, C. R. Grau, T. J. Hughes and R. L. Nelson Crop Science 2007 47: 1: 111-122

.....**AGROBASE** Generation II software (Agronomix Software Inc., Winnipeg, MB, Canada). Adjusted entry means obtained from the NNA were used in the calculation of combined ANOVA over environments, in...

Registration of 'Red Ruby' Wheat Janet M. Lewis, Lee Siler, Donna Ellis, Edward Souza, Perry K.W. Ng, Yanhong Dong, Gina Brown-Guedira, David Marshall, Jim Kolmer, Guo-Liang Jiang and Richard W. Ward Journal of Plant Registrations 2012 6: 3: 324-332

.....2010, the data were analyzed with the NNA (nearest neighbor analysis) statistical tool in **AGROBASE** Generation II (Agronomix Software, Winnipeg, Manitoba, Canada). Coefficients of variation and

Registration of 'Earl' Hard White Winter Wheat A. H. Carter, K. K. Kidwell, K. A. Balow, A. Burke, G. B. Shelton, R. W. Higginbotham, V. DeMacon, M. J. Lewien, X. M. Chen, D. A. Engle and C. F. Morris Journal of Plant Registrations 2017 11: 3: 275-280

.....the general lattice procedure in **AGROBASE** Generation 2, version 37.2.4 (Agronomix Software); unreplicated data were analyzed using the moving means procedure with replicated check cultivars.....

Molecular Mapping of Russian Wheat Aphid Resistance from Triticale Accession PI 386156 A. K. Fritz, S. Caldwell and W. D. Worrall *Crop Science* 1999 39: 6: 1707-1710

..., as well as the **AGROBASE** (Agronomix Software, Inc., Winnipeg, MB, Canada) statistical program....

Registration of 'Riveland' Lentil Kevin E. McPhee and Fred J. Muehlbauer *Journal of Plant Registrations* 2009 3: 1: 5-9

.....performed using **AGROBASE** Generation II (Agronomix Software, Inc., Winnipeg, MB, Canada). Seed yield was analyzed using a nearest neighbor experimental design, while all other morphological....

Validation and Designation of Quantitative Trait Loci for Seed Protein, Seed Oil, and Seed Weight from Two Soybean Populations Vasilias A. Fasoula, Donna K. Harris and H. Roger Boerma *Crop Science* 2004 44: 4: 1218-1225

....., and seed weight were analyzed by analysis of variance (ANOVA) with the **AGROBASE** software (Agronomix Software Inc., Winnipeg, Canada). For all statistical models, replications, environments.

A Curated Internet Database of Oat Pedigrees Nicholas A. Tinker and Jitka K. Deyl *Crop Science* 2005 45: 6: 2269-2272

.....of plant germplasm. Commercial plant breeding software, such as **AGROBASE** (Agronomix Software, Winnipeg, Canada) is also capable of managing and tracing pedigrees. While both types of.....

Genotypic and environmental effects on saturated fatty acid concentration of canola grown in Manitoba C. A. McCartney, R. Scarth, P. B. E. McVetty, J. K. Daun *Canadian Journal of Plant Science*, 2004, 84(3): 749-756, <https://doi.org/10.4141/P03-119>

.... (ANOVA) was conducted with ACB of **AGROBASE** 99 (Agronomix Software, Inc. 1999) with genotypes and environments treated as fixed effects and blocks as random effects.

Harvest hard red spring wheat S L Fox, T F Townley-Smith, J B Thomas, D G Humphreys, P D Brown, B D McCallum, T G Fetch, J G Menzies, J A Gilbert, M R Fernandez, D A Gaudet, J S Noll *Canadian Journal of Plant Science*, 2010, 90(4): 503-509, <https://doi.org/10.4141/CJPS09114>

... statistical analysis of experiments was conducted using **AGROBASE** Generation II (Agronomix Software Inc. 2006)

Fungicidal control of powdery mildew in field pea T. D. Warkentin, K. Y. Rashid, A. G. Xue *Canadian Journal of Plant Science*, 1996, 76(4): 933-935, <https://doi.org/10.4141/cjps96-156>

... means separation using the LSD test were conducted using **AGROBASE** software (Agronomix Software, Inc. 1994).

KANE hard red spring wheat S. L. Fox, D. G. Humphreys, P. D. Brown, T. F. Townley-Smith, B. D. McCallum, T. G. Fetch, D. A. Gaudet, J. G. Menzies, J. A. Gilbert, J. S. Noll *Canadian Journal of Plant Science*, 2007, 87(4): 889-894, <https://doi.org/10.4141/CJPS06043>

... statistical analysis of experiments was conducted using **AGROBASE** Generation II (Agronomix Inc. 2006).

Waskada hard red spring wheat S L Fox, J B Thomas, I L Wise, M AH Smith, D G Humphreys, P D Brown, T F Townley-Smith, B D McCallum, T G Fetch, J G Menzies, J A Gilbert, M R Fernandez, T Despins, D Niziol *Canadian Journal of Plant Science*, 2009, 89(5): 929-936, <https://doi.org/10.4141/CJPS08222>

... statistical analysis of experiments was conducted using **AGROBASE** Generation II (Agronomix Software Inc. 2006).

Unity hard red spring wheat S L Fox, R I.H. McKenzie, R J Lamb, I L Wise, M A.H. Smith, D G Humphreys, P D Brown, T F Townley-Smith, B D McCallum, T G Fetch, J G Menzies, J A Gilbert, M R Fernandez, T Despins, O Lukow, D Niziol *Canadian Journal of Plant Science*, 2010, 90(1): 71-78, <https://doi.org/10.4141/CJPS09024>

... analysis of experiments was conducted using **AGROBASE** Generation II (Agronomix Software Inc. 2009).

Fungicidal control of ascochyta blight of field pea T. D. Warkentin, K. Y. Rashid, A. G. Xue Canadian Journal of Plant Science, 1996, 76(1): 67-71, <https://doi.org/10.4141/cjps96-011>

...Data were analyzed with **AGROBASE** (Agronomix Software, Inc., 1994).

Introgression of long pod genotype from spring rape (*Brassica napus*L.) into summer turnip rape (*Brassica rapa* L.) L. J. Lewis, D. L. Woods, B. F. Cheng Canadian Journal of Plant Science, 2001, 81(1): 59-60, <https://doi.org/10.4141/P00-092>

...tests was arranged in a Nearest Neighbour design (**AGROBASE** 96 1996) with three replicates and three AC Sunshine checks in each test.

Amigo brown condiment mustard G Rakow, G Séguin-Swartz, J P Raney, J Relf-Eckstein, D Rode Canadian Journal of Plant Science, 2009, 89(4): 657-660, <https://doi.org/10.4141/CJPS08174>

...Statistical analysis of variance was performed using **AGROBASE** 21 for Windows (Agronomix Software Inc. Winnipeg, MB) and the SAS† System release 8.2

Acantozero erucic acid oriental condiment mustard G. Rakow, J P Raney, D. Rode Canadian Journal of Plant Science, 2010, 90(4): 499-502, <https://doi.org/10.4141/CJPS09155>

...analysis of variance was performed using **AGROBASE** 21 for Windows (Agronomix Software, Winnipeg, MB) and the SAS† System release 8.2.

Snowstar hard white spring wheat D. G. Humphreys, T. F. Townley-Smith, E. Czarnecki, O. M. Lukow, B. McCallum, T. Fetch, J. Gilbert, J. Menzies, D. Brown, S. L. Fox Canadian Journal of Plant Science, 2013, 93(1): 143-148, <https://doi.org/10.4141/cjps2012-146>

...means was based on the checks and Snowstar, and calculated using the **AGROBASE** 21 (Agronomix Software Inc.).

A method for screening soybean seedlings for resistance to northern stem canker caused by *Diaporthe phaseolorum* var. *caulivora* K. Thickett, J. VanDerWal, L. Lovett-Doust, T. R. Anderson Canadian Journal of Plant Science, 2007, 87(2): 443-447, <https://doi.org/10.4141/P06-053>

...(ANOVA) was conducted on stem lesion length with **AGROBASE** 21 (Agronomix Software Inc., Winnipeg, MB).

Centennial Brown brown condiment mustard G. Rakow, J. P. Raney, D. Rode, J. Relf-Eckstein Canadian Journal of Plant Science, 2009, 89(2): 337-340, <https://doi.org/10.4141/CJPS08146>

...analysis of variance was performed using **AGROBASE** 21 for Windows (Agronomix Software Inc. Winnipeg, MB) and the SAS† System release 8.2...

Structural equation modeling of the Canadian flax (*Linum usitatissimum* L.) core collection for multiple phenotypic traits

Tao Zhang, Eric G. Lamb, Braulio Soto-Cerda, Scott Duguid, Sylvie Cloutier, Gordon Rowland, Axel Diederichsen, Helen M. Booker Canadian Journal of Plant Science, 2014, 94(8): 1325-1332, <https://doi.org/10.4141/cjps-2014-158>

...plots were used to adjust for heterogeneity and the final adjusted mean values were calculated using **AGROBASE** Generation II software (Agronomix Software Inc.) for a MAD type-2 design.

Napoleon Amber durum wheat D.G. Humphreys, T.F. Townley-Smith, D. Leisle, B. McCallum, D. Gaudet, J. Gilbert, J. Menzies Canadian Journal of Plant Science, 2010, 90(6): 863-867, <https://doi.org/10.4141/cjps10024>

...were calculated using locations means from the Durum Coop reports using **AGROBASE** 21 software (Agronomix Software Inc., Winnipeg, MB, Canada).

AC Pennant, AC Base and Andante yellow condiment mustard cultivars G. Rakow, J. P. Raney, J. Relf-Eckstein, D. Rode Canadian Journal of Plant Science, 2009, 89(2): 331-336, <https://doi.org/10.4141/CJPS08145>

...analysis of variance was performed using **AGROBASE** 21 for Windows (Agronomix Software Inc., Winnipeg, MB) and the SAS† System release 8.1

AC Vulcan oriental condiment mustard G. Rakow, D. Rode Canadian Journal of Plant Science, 2009, 89(2): 325-329, <https://doi.org/10.4141/CJPS08147>

...analysis of variance was performed using **AGROBASE** 21 for Windows (Agronomix Software Inc. Winnipeg, MB) and the SAS† System release 8.2

Superb hard red spring wheat T F Townley-Smith, D G Humphreys, E Czarnecki, O M Lukow, B M McCallum, T G Fetch, J A Gilbert, J G Menzies, P D Brown Canadian Journal of Plant Science, 2010, 90(3): 347-352, <https://doi.org/10.4141/CJPS09087>

...zLSD of means was based on the checks and Superb calculated using **AGROBASE 21** (Agronomix Software Inc., Winnipeg, Manitoba, Canada).

Shaw hard red spring wheat S. L. Fox, I. L. Wise, M. A. H. Smith, D. G. Humphreys, P. D. Brown, B. D. McCallum, T. G. Fetch, J. G. Menzies, J. A. Gilbert, M. R. Fernandez, T. Despins, O. Lukow, D. Nizioł Canadian Journal of Plant Science, 2013, 93(2): 299-305, <https://doi.org/10.4141/cjps2012-137>

... statistical analysis of experiments was conducted using **AGROBASE Generation II** (Agronomix Software. Inc. 2009).

Nearest-neighbor-adjusted means as a selection criterion within two soybean populations T. C. Helms, J. H. Orf, R. A. Scott Canadian Journal of Plant Science, 1995, 75(4): 857-863, <https://doi.org/10.4141/cjps95-142>

...second-difference NNA analysis proposed by Schwarzbach (1984) was conducted using **AGROBASE** Software (Mulltze 1992).

Effect of row spacing and seeding rate on forage yield and quality of perennial cereal rye (*Secale cereale* L.) S. N. Acharya, Z. Mir, J. R. Moyer, B. R. Orshinsky, J. E. Thomas Canadian Journal of Plant Science, 2003, 83(2): 363-369, <https://doi.org/10.4141/P01-183>

...was performed using ANOVA for balanced design in **AGROBASE 99** (Agronomix Software Inc., Winnipeg, MB) software.

Utilization of doubled haploid technique in Brassica rapa population improvement H. Friesen, R. Scarth Canadian Journal of Plant Science, 2000, 80(1): 75-82, <https://doi.org/10.4141/P99-041>

...were analyzed through nearest neighbour analysis of variance (NNA) using **AGROBASE /4™** (Mulltze 1992) statistical program

Assessment of agronomic performance and heterosis for agronomic traits in hybrid high erucic acid rapeseed (HEAR) R. D. Cuthbert, G. Crow, P. B. E. McVetty Canadian Journal of Plant Science, 2009, 89(2): 227-237, <https://doi.org/10.4141/CJPS08160>

...from the yield trials were analyzed using **AGROBASE** (**AGROBASE 1997**).

Information systems for crop performance data N. A. Tinker, W. Yan Canadian Journal of Plant Science, 2006, 86(3): 647-662, <https://doi.org/10.4141/P05-171>

... is a comprehensive, feature-rich database and data analysis system that is designed for both breeders and agronomists. **AGROBASE** fills a niche for the researcher who is looking for an integrated solution for data management and ...