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THE 41st ANNUAL REPORT OF THE BEAN IMPROVEMENT COOPERATIVE

The Bean Improvement Cooperative enjoyed an invigorating meeting at the 1997 Biennial Meeting in Annapolis, Maryland last November. We all appreciated the time and efforts of our local hosts Ed Kee (University of Delaware) and J. Rennie Stavely (USDA/ARS-Beltsville) and industry sponsors who provided a friendly and memorable setting for all of the participants. We look forward to our next meeting in 1999 with our Canadian friends and colleagues.

The BIC Coordinating Committee conducted the following business at Annapolis:

- Rennie Stavely and Ken Grafton rotated off of the Coordinating Committee after many years of dedicated service to the BIC and its grateful members. The Committee accepted the invitations of Jim Beaver and Bert Vandenberg to serve the BIC.

- A motion was made and accepted to amend the requirements for BIC Award Nominations such that: A nominee for the Achievement or Meritorious Service Award must have been a member of the Bean Improvement Cooperative for at least 5 or 10 years to be eligible for consideration for the Achievement or Meritorious Award, respectively.

- A motion was made and accepted to reaffirm the bean (Phaseolus) focus of the BIC to facilitate exchange of information and breeding stocks among all workers interested in improvement of Phaseolus species with emphasis upon dry, snap and lima beans. By virtue of this motion and increasing publication and postage costs, the BIC will no longer be able to publish progress reports on other legumes, i.e., chickpea, pigeonpea, cowpea, soybean.

- A motion was made and accepted to approve the appointment of Dr. James Kelly for a 5-year term as President of the BIC from January 1, 1998 to January 1, 2003. With mutual consent by the BIC President and Coordinating Committee, at the conclusion of his first term Dr. Kelly could be appointed for a second 5-year term until January 1, 2008.

- A motion was made and accepted to approve the appointment of the outgoing President of the BIC, Dr. Howard F. Schwartz, as an ex-officio member of the Coordinating Committee until January 1, 2000 to provide continuity and counseling as needed for the transition of BIC records, operations and other business.

In conclusion, I would like to thank the BIC and its members for the opportunity to serve as President for the last 10 years and ask you to join me in welcoming Jim Kelly as he guides our dynamic organization into the next millennium. I would also like to thank Dermot Coyne and colleagues for the beautiful Citation of Appreciation which was presented to me on behalf of the BIC at the Biennial Meeting.

Dr. Howard F. Schwartz
Past BIC President

BIC COMMITTEE MEMBERSHIP - 1957 to 1998

Coordinating Committee (approximate year of appointment):
1957   Dean, Enzie, Frazier* (BIC Coordinator/President), McCabe, Zaumeyer
1960   Anderson, Atkin, Dean, Enzie, Frazier, McCabe, Zaumeyer
1962   Anderson, Atkin, Dean, Frazier, Pierce, Polzak, Zaumeyer
1968   Anderson, Coyne, Dean, Jorgensen, Polzak, Zaumeyer
1971   Briggs, Coyne, Dean, Jorgensen, Polzak, Zaumeyer
1972   Burke, Coyne, Dean, Jorgensen, Kiely, Polzak, Zaumeyer
1974   Ballantyne, Bravo, Burke, Coyne, Dickson, Emery, Evans, Kiely, Saettier, Zaumeyer
1977   Ballantyne, Bliss, Coyne, Dickson, Emery, Evans, Graham, Meiners, Morris, Saettier, Zaumeyer
1978   Atkin, Ballantyne, Bliss, Coyne, Dickson, Graham, Meiners, Morris, Saettier, Sprague
1979   Atkin, Bliss, Dickson, Graham, Hagedorn, Meiners, Morris, Sprague, Wallace
1980   Atkin, Bliss, Dickson, Hagedorn, Morris, Sprague, Steadman, Temple, Wallace
1982   Atkin, Coyne, Dickson, Hagedorn, Sprague, Steadman, Temple, Wallace, Wyatt
1983   Coyne, Dickson, Hagedorn, Saettier, Silbermagel, Steadman, Temple, Wallace, Wyatt
1985  Coyne, Dickson, Mok, Saettler, Silbernagel, Steadman, Temple, Wallace, Wyatt
1986  Coyne, Dickson, Mok, Saettler, Schoonhoven, Schwartz, Silbernagel, Steadman, Wallace
1988  Brick, Dickson, Emery, Magnuson, Roos, Schwartz, Singh, Steadman, Uebersax
1992  Dickson, Emery, Grafton, Magnuson, Schwartz, Singh, Stavely, Steadman, Uebersax
1994  Antonius, Dickson, Grafton, Magnuson, Park, Schwartz, Singh, Stavely, Uebersax
1996  Antonius, Grafton, Park, Schwartz, Singh, Stavely, Myers, Kotch, Miklas, Riley
1998  Antonius, Park, Schwartz (ex officio), Singh, Myers, Kotch, Miklas, Riley, Beaver, Vandenberg, Kelly

Awards Committee:

1971  Baggett, Briggs, Burke, Dean, Wallace
1973  Burke, Dean, Mauth, Zaumeyer
1975  Ballantyne, Frazier, Mauth
1977  Ballantyne, Curme, Frazier, Schuster
1979  Ballantyne, Schuster, Silbernagel, Temple
1981  Abawi, Bliss, Monis, Silbernagel
1983  Adams, Bliss, Burke, Dean, Monis
1985  Emery, Hagedorn, Sandsted, Schwartz
1987  Emery, Hagedorn, Sandsted
1989  Coyne, Silbernagel, Wallace
1995  Coyne, Dickson, Stavely
1997  Coyne, Stavely, Schwartz


PHIL MIKLAS

Dr. Phillip Miklas, USDA-ARS, Prosser, Washington was born November 6, 1958 in Washington, D. C. He received his B.S. degree from Mesa State College (Colorado) in 1982 and his M.S. degree in Agronomy at Colorado State University in 1985. Phil then worked as an agronomist for two years at the CSU Fruita Experiment Station near Grand Junction, Colorado. In 1987 he decided to return to school to earn a Ph.D. degree and accepted an offer from Dr. Ken Grafton at North Dakota State University. He completed his degree in 1991, during which time he was the first to receive the NDSU Research Council Graduate Student Fellowship and also the Devon Miller Memorial Scholarship as the outstanding plant breeding student. Phil then accepted a position as a Post-Doctoral Fellow at Michigan State University with Dr. James D. Kelly. Phil remained at MSU for approximately one year and in 1992 was offered the USDA-ARS geneticist position at Mayaguez, Puerto Rico. In 1996, Phil was transferred to Prosser, WA to replace Dr. Matt Silbernagel upon his retirement.

During his relatively brief career, Dr. Miklas has achieved national and international prominence in his work on bean genetics. He was the first to: (i) combine NIL and bulked segregant analysis into a single method to identify RAPD markers tightly linked to targeted traits; (ii) identify a RAPD marker tightly linked to a disease resistance trait in common bean; (iii) identify a codominant marker useful for indirect selection of a recessive disease resistance gene; (iv) describe the use of different marker orientations (coupling and repulsion) in different breeding methods (backcross and F2 and later generation selection); and (v) use a selective mapping approach in common bean to identify QTL conditioning disease resistance. His work on molecular markers will allow plant breeders to have a better understanding of bean genetics and improve their utilization of marker assisted selection.

Dr. Miklas also developed novel laboratory screening methods to evaluate dry bean germplasm for white mold resistance and has conducted inheritance studies that identified breeding schemes to improve white mold resistance. In addition, Phil systematically evaluated material developed by his predecessor at Mayaguez, Dr. George Freytag and was able to identify lines that possessed unique combinations of resistance to bean golden
mosaic virus, bean common mosaic virus, common bacterial blight and white mold. Dr. Miklas has released over nine germplasm lines as a result of this and other work.

At Prosser, Dr. Miklas has expanded disease research efforts that combine traditional breeding techniques with novel approaches. His abilities and creativity will result in continued success of this important program. Phil is always ready and willing to collaborate on research in common bean. He has developed an excellent working relationship with bean researchers in both the U. S. and Central and South America and has won the respect of these collaborators because of his excellent work and dedication. In addition, Phil has become involved in service to the *Phaseolus* research group by serving as Chair of the W-150 Regional Project, Secretary (and acting Chair) of the *Phaseolus* Crop Germplasm Committee, as well as serving on the BIC Genetics Committee and the BIC Coordinating Committee.

GEORGE EMERY

Dr. George C. Emery, plant breeder, Ferry Morse Seed Company, San Juan Bautista, California is recognized for 30 years of snap bean breeding. George developed more than 50 varieties of snap beans. Many such as Trueblue, Envy, Rapids, Tenderlake, Hailea, Derby, Golden Rod, Nuget, Primo and Lima-Packers have become important varieties.

George was born and raised in Pennsylvania. He served in the Army and graduated with B.S. and M.S. degrees from Penn State University. He spent two years at Brookhaven National Laboratory and then entered Cornell where he graduated with a Ph.D. in plant breeding in 1966. He then joined Ferry Morse Seed Company in San Juan Bautista and managed the bean and later the lettuce breeding programs throughout his career. In 1974, he was transferred to Wisconsin. In 1982, he was promoted to Director of Research and transferred back to San Juan Bautista. In 1987, he was made a Senior Plant Breeder for Snap Beans and Lettuce.

He was active in trying to improve seed quality and disease resistance in snap beans and his last research efforts should lead to some of the first commercially available white mold tolerant varieties. George has had a deep commitment during his career to developing varieties that would build and maintain a strong snap bean industry. His ceaseless and untiring efforts are widely recognized by his colleagues in the industry.

He served on the BIC Coordinating Committee and was active in promoting cooperation between academic and commercial research. George has been very active with his church and his wife Lise and four children are a very prominent part of his life.

JIM KELLY

Dr. James D. Kelly, Dept. of Crop and Soil Sciences, Michigan State University, East Lansing, Michigan was born in Lisburn, County Antrim, Northern Ireland on June 1, 1947. He graduated with distinction from local primary and secondary schools and matriculated at Queens University, Belfast, Northern Ireland, where he received a B.S. degree in 1968 and a Bachelor of Agriculture with honors in 1969. Jim earned M.S. and Ph.D. degrees with Dr. Frederick Bliss in the Bean Breeding and Genetics Laboratory at the University of Wisconsin at Madison. Jim was a Foreign Area Fellow at CIAT, Cali, Colombia during 1973 to 1974.

Dr. Kelly's first job, after completing his Ph.D. in 1974 was Chief Bean Breeder for the Campbell Institute for Research at Napoleon, Ohio. While holding this position for six years, Dr. Kelly gained worldwide recognition for significant contributions to navy beans. He released C-20 with multiple disease resistance which yielded 22-33% greater than traditional navy bean cultivars in 1984.

Throughout his career, Dr. Kelly has tackled a wide variety of difficult dry bean research problems which ranged from development of high yielding, architecturally superior, disease resistant varieties using traditional breeding strategies to adopting marker-assisted selection technologies. Dr. Kelly developed ‘Sierra’ pinto bean which
combined upright architecture with medium seed size; this was an outstanding plant breeding accomplishment because less than 0.5% of all common bean accessions maintained in germplasm banks combine these traits. This new morphological bean type created by artificial crossing represented a shift for bean improvement programs worldwide.

In 1989-90, Dr. Kelly was on sabbatical leave at the University of California-Davis. This experience enabled Jim to develop an expertise using RFLP marker technology. Since the early 90’s, Jim has been at the vanguard of establishing marker-assisted breeding strategies for dry bean. Dr. Kelly envisioned using newer PCR-based RAPD marker technology for integrating marker-assisted selection into a customer-based breeding program with the identification and application of selectable markers for rust, BCMV and anthracnose resistance genes. Dr. Kelly’s adroitness using RAPDs led to new findings and ideas concerning gene pyramiding for more durable resistance, gene pool specificity of genetic markers, manipulating linkage orientation to increase indirect selection efficiency of dominant markers and implementing MAS in the development of multiple disease resistant varieties. Dr. Kelly’s successes in this research have led to remarkable achievements that have transcended species and have been recognized worldwide. Jim is a world leader in using new DNA technology.

Dr. James D. Kelly’s illustrious career in bean research has spanned 23 years. He is a paragon because of his intimate knowledge of Phaseolus and his creativity and successes on several research fronts. Jim has dedicated his entire professional career to improving a crop species that offers the best potential for alleviating world nutritional deprivation. Dr. Kelly and his work inspire his colleagues.

STEVE MAGNUSON

Donald Stephen Magnuson, plant breeder, Harris Moran Seed Company, San Juan Bautista, California is recognized as one of the outstanding active snap bean and radish breeders in the industry. His program is very diversified and is at the leading edge of commercial development of new varieties with advantageous traits not found in presently available varieties.

He has successfully developed a number of varieties of which Hystyle is currently the most notable, since it was the first brown spot resistant variety. Other varieties are Roma 26, Romano 942, Probe, Sable, Shade, Prosperity and Minuette. In addition, Steve has nine new varieties which should be released in the near future. These will be quite original in having such attributes as white mold resistance, heat tolerance, cold tolerance and root rot tolerance.

Steve was born October 10, 1943 in Alliance, Nebraska. He graduated from Alliance High and attended Kearney State College in Kearney, Nebraska. He then served in the U. S. Army as a Traffic Analyst with the U. S. Army Security Agency. He returned to college at the University of Montana where he obtained his B. S. degree in 1971. He then entered graduate school at the University of Nebraska and earned an M. S. degree in Plant Pathology with Dr. James R. Steadman in 1975. While in graduate school, Steve worked as a technician for Dr. Dermot P. Coyne in his dry bean breeding program.

After obtaining his M. S. degree in 1975, Steve was hired by Niagara Seed (now Harris Moran Seed Company) as their bean breeder and moved to Gilroy, California. Steve has held many positions working for Harris Moran, including Research Manager, however, his love is bean breeding and today he is a Senior Breeder at Harris Moran’s San Juan Bautista Station. Today, 95% of the snap bean varieties sold by Harris Moran were developed by Steve.

Steve has served on the BIC Coordinating Committee and been active with the BIC Genetics Committee.

Steve is married and has two children. He and his wife Mary and son Seth, live in Gilroy. Their daughter, Karma, attends the University of Nebraska in Lincoln.
DAVID NULAND

David S. Nuland is a Dry Bean Extension Specialist at the University of Nebraska Panhandle Research and Extension Center at Scottsbluff, Nebraska. David was born on Flag Day, June 14, 1931 in Bertha Township, Todd County, Minnesota. After enlisting in the Army and serving two years during the Korean conflict, he graduated from the University of Nebraska with a B.S. degree in Agronomy in 1957 and a M.S. degree in Horticulture in 1962. For the past 29 years, David has been stationed at the Panhandle Station and in 1987 he was reassigned to 100% dry bean extension.

David is an enthusiastic variety evaluator with the producer’s interest at heart. He combines the Cooperative Dry Bean Nursery and all commercial pintos and great northers into trials where new bred materials are evaluated side-by-side with the tried and true varieties. His observations are invaluable to plant breeders. He has successfully molded a working relationship between industry, producers and County Educators resulting in on-farm research in western Nebraska. His leadership in the area of on-farm research and the statistical analysis ‘probability of exceeding the mean’ is recognized nationally. Major areas of research have been compaction, nitrogen use, nitrogen fixation, response to hail injury, variety response to iron stress and variety development of great northern and pinto germplasm. Inferences from these trials are applicable to the entire dry bean production area of Nebraska and are shared with producers through THE BEAN BAG. Results are displayed graphically and statistical differences are conveyed in a decision-making language that expresses risk and is understood by growers.

Since 1978, David has been a key member of the very successful variety development team at the University of Nebraska. As a member of that team, he has received the Nebraska Crop Improvement Award. His variety testing and evaluation research has been a critical component of the breeding program, without which new materials would not have had the opportunity to excel. Variety development efforts have resulted in a one-time yield jump of 240 lbs/acre for great northers in 1984. The impact of this varietal driven yield jump for Scotts Bluff County alone resulted in increased revenue of $1.8 million each year for the past 13 years.

In 1987, David was appointed editor of the Nebraska Dry Bean Growers Association quarterly publication THE BEAN BAG. David took this publication from a cut-and-paste operation into the era of electronic desk top publishing. By 1991, this small publication had generated enough revenue that the association set up an office to publish THE BEAN BAG and run it debt free. David continues to write and edit material for each issue. He has co-edited two regional bean publications designed for producers. He shares time and resources regionally, networking with Colorado, Wyoming, Kansas and Nebraska dry bean specialists.

David continues to be interested in understanding yield response of dry beans to weather and the effects of technological progress. He developed a dry bean yield model which, on a national level, shows technological progress for all dry bean producing areas since 1940. David’s dry bean yield model is also useful in tracking yield advance throughout the season, thus identifying periods of yield vulnerability in terms of phenological time. His substantial efforts in bean research and education are worthy of recognition by his appreciative peers.
1997 B I C MEETING - SPONSOR & STUDENT RECOGNITION

The 1997 BIC/NDBC Annual Meeting in Annapolis, Maryland was successful due to the excellent coordination and leadership of the local organizing committee (Ed Kee, Rennie Stavely, Tracy Wootten and Cheryl Richardson) and the generous support of the following sponsors:

- National Dry Bean Council of McLean, Virginia
- Vegetable Growers Association of Delaware, Georgetown
- Harris-Moran Seed Co. of San Juan Bautista, California
- Seminis Vegetable Seeds of Twin Falls, Idaho
- Central Bean Company of Quincy, Washington
- Idaho Seed Bean Company of Twin Falls, Idaho
- Sacramento Valley Seed Milling of Ordbend, California

The BIC Coordinating Committee also recognized the following students for their excellent paper and poster presentations:

**Poster:** “Analysis of White Mold Tolerance in Dry Bean” by Judith Kolkman from the Dept. of Crop and Soil Sciences at Michigan State University - Dr. James D. Kelly, major advisor.

**Paper:** “Comparison of Resistance to Fusarium Wilt in Durango and Mesoamerican Races of Common Bean” by Hugh Cross from the Dept. of Soil and Crop Sciences at Colorado State University - Dr. Mark A. Brick, major advisor.

1999 BIENNIAL BIC/NDBC MEETING - November 6-13, 1999 in Calgary, Alberta

The Local Organizing Committee is composed of Bert Vandenberg from the University of Saskatchewan [tele: 306-966-4978; fax: 306-966-5015; email: vandenberg@sask.usask.ca], H-Henning Muendel from The Research Center at Lethbridge [tele: 403-317-2275; fax: 403-382-3156; email: muendel@em.agr.ca] and Al Slinkard from the University of Saskatchewan [tele: 306-966-4978; fax: 306-966-5015; email: vandenberg@sask.usask.ca]. The meetings will be held at the Coastal Plaza Hotel; with shuttle service to and from the Calgary International Airport. BIC members will receive more information on the Call for Abstracts and an Updated Schedule of Meeting Events from the organizers in the 1999 BIC report and mailings from the organizing committee.

New USDA-ARS Dry Bean Scientist in Mayaguez, Puerto Rico

James (Rusty) Smith is the new Research Geneticist at the Tropical Agriculture Research Station (TARS) in Mayaguez, Puerto Rico. Rusty arrived from Hawaii and started work at TARS in January 1998. He worked previously on the genetics, breeding and diseases of soybean (10 years), rice (2 years) and corn (5 years). Rusty looks forward to establishing a research program in dry bean germplasm enhancement and genetics and in studying the interactions between dry bean and some of its biotic and abiotic stresses and he looks forward to interacting with bean colleagues in the future. Dr. Smith can be reached at: USDA-ARS-TARS, PO Box 70, Mayaguez, PR 00681. Phone: (787) 831-3435 ext. 254. FAX: (787) 831-3386. Email: mayrs@ars-grin.gov.
IN MEMORY OF Ing. Freddy Saladín García

Freddy Saladín García of Santo Domingo, Dominican Republic died October 31, 1997 at the age of 56. Ing. Saladín earned a degree in agronomy from the National Autonomist University in Santo Domingo. Most of his professional career in the Dominican Republic was spent with the Ministry of Agriculture. Ing. Saladín held many positions within the Ministry of Agriculture (MOA) including the leadership of the grain legume research program and the Head of the MOA Research Department. Ing. Saladín selected 'PC-50' which is currently the most popular red mottled bean variety in the Dominican Republic. From 1984 to 1993, Ing Saladín served as the Principal Investigator for the Bean/Cowpea CRSP project in the Dominican Republic. He supported the training of several bean researchers in the Dominican Republic and participated in research that lead to the use of fallow periods and synchronous plantings of beans to control bean golden mosaic virus. Ing. Saladín also served as the Regional Coordinator of PROFRIJOL from 1994 to 1996. He supported workshops dealing with the most important bean diseases in Central America and the Caribbean and worked diligently to strengthen national bean research programs. The black bean variety 'Arroyo Loro Negro' and the red mottled variety 'Saladin 97' are recent releases in the Dominican Republic that are the product of PROFRIJOL supported research. Ing. Saladín contributions to bean improvement and bean production are recognized throughout the Americas. He is survived by his wife Manuela and son Freddy Manuel.
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<td>Raul Rodriguez-Guerra</td>
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<td>Ron Riley</td>
<td>Rogers Seed Company 6388 HWY 20 - 26 Nampa, ID 83687</td>
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<tr>
<td>Eric E. Roos</td>
<td>National Seed Storage Laboratory 1111 So. Mason Street Fort Collins, CO 80521-4500</td>
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<td>Juan Carlos Rosas</td>
<td>EAP / ZAMORANO P. O. Box 93 Tegucigalpa, HONDURAS</td>
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<td>Klaus Rudolph</td>
<td>Inst. für Pflanzenpath. und Pflanzenschutz Grisebachstr. 6 D-37077 Gottingen, GERMANY</td>
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<td>Gerrit Ruiter</td>
<td>Holland-Select b.v., PO Box 27 1619 ZG Andryk THE NETHERLANDS</td>
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<td>C. E. Valle del Fuente Apdo. Postal No. 342 Los Mochis, Sin. MEXICO</td>
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<td>Craig Sandlin</td>
<td>Rogers Seed Company 7240 Holsclaw Road Gilroy, CA 95020</td>
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<td>Adolfo Guemes 427-2 B 4400 - Salta ARGENTINA</td>
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<td>Robert F. Sacher</td>
<td>Hunt-Wesson 1645 W. Valencia Drive Fullerton, CA 92833-3899</td>
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<td>Sandoz Seed</td>
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<td>Roger F. Sandsted</td>
<td>22 Dutcher Road Freeville, NY 13068</td>
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<td>Eladio Arnaud Santana</td>
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<td>Hitoshi Sato</td>
<td>Bean Breeding Lab, TAES Memuro-cho, Kasai-gun Hokkaido 022-0071, JAPAN</td>
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<tr>
<td>Fayez Faris Saveris</td>
<td>Agr. Research Center 51 Salah Salim Street Giza, EGYPT</td>
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<tr>
<td>Jim Schild</td>
<td>1825 10th Street Univ. of Nebraska Extension Gering, NE 69341</td>
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<tr>
<td>Robert W. Schlegel</td>
<td>Plant Variety Protection Office, 10301 Baltimore Blvd., Rm. 500, Beltsville, MD 20705</td>
<td>Tele: 301-504-5697 FAX: 301-504-5291</td>
</tr>
<tr>
<td>Roger A. Schmit</td>
<td>Del Monte Corp. Agr Res Ctr, 205 No. Wiget Lane, Walnut Creek, CA 94598</td>
<td>Tele: 510-944-7312 FAX: 510-945-7453</td>
</tr>
<tr>
<td>Kristin Schneider</td>
<td>Dept. of Crop and Soil Sciences, Michigan State University, E. Lansing, MI 48824</td>
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</tr>
<tr>
<td>Eduard C. Schroder</td>
<td>Dept. of Agronomy &amp; Soils, University of Puerto Rico, Mayaguez, PR 00681-5000</td>
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</tr>
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</tr>
<tr>
<td>Klaus Schumann</td>
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</tr>
<tr>
<td>Howard F. Schwartz</td>
<td>Dept. of Bioagr. Sci. &amp; Pest Mgm, Colorado State University, Fort Collins, CO 80523-1177</td>
<td>Tele: 970-491-6987 FAX: 970-491-3862</td>
</tr>
<tr>
<td>Dieter Schweizer</td>
<td>Univ. of Vienna, Remweg 14 A-1030, Vienna, AUSTRIA</td>
<td>Tele: 43-1-79794 x 180 FAX: 43-1-79794 x 131</td>
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<tr>
<td>Clause Semences</td>
<td>Chef de Sta des Menis, M. Lepit Emmanuel 24, Ave. P. Brosolette 91221 Bretigny Sur Orge Cedex, FRANCE</td>
<td>Tele: FAX:</td>
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<tr>
<td>Sementes Agroceres S.A.</td>
<td>Centro de Pesquisa de Hort. C. P. 1260, 3900-000 Igarape, MG, BRAZIL</td>
<td>Tele: FAX:</td>
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<tr>
<td>Mathias J. Silbernagel</td>
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<tr>
<td>Butch Shaffer</td>
<td>Pure Line Seeds, Inc., P. O. Box 8866, Moscow, ID 83843</td>
<td>Tele: 208-882-4422 FAX: 208-882-4326</td>
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<tr>
<td>Ronald Shellenberger</td>
<td>Rogers Seed Company, P. O. Box 1069, Nampa, ID 83653</td>
<td>Tele: 208-463-2506 FAX: 208-463-2599</td>
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<tr>
<td>Shree P. Singh</td>
<td>C I A T, 1380 NW 78th Avenue, Miami, FL 33126-1606</td>
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<tr>
<td>Laura Silva-Rosales</td>
<td>CINVESTAU-IPN, Unidad Irapuato, Apdo. Postal 629, Irapuato, GTO 36500, MEXICO</td>
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<tr>
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<td>Tele: FAX:</td>
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<td>Dora Regina Siqueira</td>
<td>IAPAR - Documentacao, Caixa Postal 1331, 86001-970, Londrina-Parana, BRAZIL</td>
<td>Tele: 55-043-26-1525 FAX: 55-043-326-7868</td>
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<tr>
<td>A. E. Slinkard</td>
<td>Crop Sci. Dept., Univ. of Saskatchewan, Saskatoon, Saskatchewan, 5/Campus Drive CANADA S7N 5A8</td>
<td>Tele: 306-966-4978 FAX: 306-966-5015</td>
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<tr>
<td>Rusty Smith</td>
<td>USDA-ARS-TARS, PO Box 70, Mayaguez, Puerto Rico 00681</td>
<td>Tele: 787-831-3435 ext. 254 FAX: 787-831-3386</td>
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<tr>
<td>Raymond C. Smith</td>
<td>Sunland Seed Pty Ltd, P. O. Box 7, Cooperook 2426, NSW AUSTRALIA</td>
<td>Tele: 61-65-563234 FAX: 61-265563234</td>
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<tr>
<td>Tom Smith</td>
<td>Crop Science Dept, University of Guelph, Guelph, ON, Canada N1G 2W1</td>
<td>Tele: 519-824-4120 ext 8339 FAX: 519-763-8933</td>
</tr>
<tr>
<td>Societe Generale</td>
<td>3 Rue Martin Luther King, Boite Postale 242 84010 Avignon, CEDEX 1</td>
<td>Tele: 90-80-57-00 FAX:</td>
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<tr>
<td>A. P. Sprague</td>
<td>18383 Wyndale Court, Castro Valley, CA 94546</td>
<td>Tele: 510-537-1953 FAX:</td>
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<td>St. Paul Campus Library</td>
<td>1984 Buford Avenue, University of Minnesota, St. Paul, MN 55108</td>
<td>Tele: FAX:</td>
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<td>J. Rennie Staveley</td>
<td>ARS/USDA, Rm. 252, Bldg. 011A, Molecular PI Path Lab, PSL 10300 Baltimore Ave., Beltsville, MD 20705-2350</td>
<td>Tele: 301-504-6600/6564 FAX: 301-504-5449</td>
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<tr>
<td>James R. Steadman</td>
<td>Dept. of Plant Pathology, University of Nebraska, Lincoln, NE 68583-0722</td>
<td>Tele: 402-472-3163 FAX: 402-472-2853</td>
</tr>
<tr>
<td>Kathy Stewart-Williams</td>
<td>University of Idaho, Kimberly R&amp;E Center, 3793 N. 3600 E, Kimberly, Idaho 83341</td>
<td>Tele: 208-423-6693 FAX: 208-423-6696</td>
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<tr>
<td>Peter Stoffella</td>
<td>2199 South Rock Road, University of Florida, Fort Pierce, FL 34945-3138</td>
<td>Tele: 407-468-3922 FAX:</td>
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<tr>
<td>Wang Su</td>
<td>Inst. of Veg. &amp; Flowers, Acad of Ag Sci, 30 Baishiquiao Road, Beijing 100081, CHINA</td>
<td>Tele: 0086-10-62173589 FAX: 0086-10-62174123</td>
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<td>William L. Summers</td>
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<td>Barry G. Swanson</td>
<td>FSBN - 6376</td>
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<td>Rogerio Faria Vieira</td>
<td>Grain Legume Researcher</td>
<td>55-31-891-2646</td>
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<td>Don R. Sumner</td>
<td>Dept. of Plant Path, Coastal Plain Sta</td>
<td>912-386-3158</td>
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<td>Steven R. Temple</td>
<td>Dept. of Agronomy &amp; Range Science</td>
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<td>Botany and Plant Sciences</td>
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BEAN IMPROVEMENT COOPERATIVE - Financial Statement

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Balance on Hand December 31, 1996

$5,421.14

Balance on Hand December 31, 1997

$4,298.32