

DIVERSITY

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NPGRB Urges Block to Support Germplasm Enhancement

"Germplasm enhancement - a key aspect of germplasm improvement and preservation - should be considered a significant part of USDA's fundamental research mission and should be supported in FY 84 and ensuing years," the National Plant Genetic Resources Board (NPGRB) advised USDA Secretary John Block in a May 14 letter. "The productivity of American agriculture is directly dependent on the availability of superior fundamental germplasm stocks," the Board told the Agriculture Secretary.

The letter was the first official action taken by the newly-appointed Board members at the advisory group's May 13-14 meeting in Washington, D.C. (see story, p. 2). Pleased with the FY 82 and projected FY 83 budget increases for the National Plant Germplasm System (NPGS), the NPGRB commended the Secretary "for his foresight in developing a budget that recognizes plant germplasm as an important national resource," (see DIVERSITY vol. 1, no. 1, p. 5).

NPGRB Chairman Anson Bertrand had earlier urged the new Board to make its position on germplasm enhancement known in a formal statement to the Secretary.

The Administration's policy of New Federalism "makes it imperative for the Board to address the question of where, within the germplasm continuum from acquisition to variety development, the federal role stops," Bertrand told the Board in what he billed as his last official NPGRB appearance before the Administration appoints an Assistant Secretary of Science and Education. (The new political appointment is a requirement of the 1981 Farm Bill. Bertrand has served as Director of Science and Education since 1976.)

A budget recommendation on germplasm enhancement from an advisory body with significant industry representation such as the NPGRB "would make all the difference in the world in the 1983-1984 budget battles USDA faces in the next few months," the Chairman told Board members. July 9 is the deadline for the Agricultural Research Service and the Cooperative State Research Service, the primary USDA agencies under which the NPGS operates, to submit their 1984 budget proposals to Block. The Secretary is required to make his recommendations to the Office of Management and Budget (OMB) by September 15.

OMB Issues Stiff Rules on Federal Research Funding

Despite the high priority Block has placed on agricultural research, OMB has recently imposed rigid guidelines governing all federal research that could seriously hamper many USDA research programs, including germplasm enhancement. Bertrand explained that the new OMB rules rank "applied research with commercial potential, or any research activity which can be reasonably expected to be financed by the private sector," as the lowest federal budget priority. (According to

Bertrand, OMB has *already* declared that any ongoing research conducted or sponsored by USDA which is commercial in nature will be terminated and its resources redirected.) In contrast, the OMB guidelines give top priority to federal research expenditures for basic research. As a result of these new OMB rules, there is a concern that germplasm enhancement - which is often confused with breeding of new varieties for release - could be categorized as a private sector activity.

Without a convincing argument from the NPGRB that germplasm enhancement is a legitimate and vital activity for the federal government, predicted Bertrand, the proposed NPGS increases in this area would surely fall victim to the OMB ax.

The Board explored the issues raised by Bertrand and ultimately agreed with National Technical Advisor (NTA) for Crop Germplasm Enhancement Douglas Dewey's position that germplasm enhancement "is logically a federal responsibility because it is tied directly to the federally administered NPGS and the gene pools produced by the program have regional or national application."

There was also consensus among the Board members that the federal government should not assume that the private sector would support germplasm enhancement in the way that it supports other breeding activities because it is a high risk, long-term, and costly endeavor. Without federal (USDA) support for enhancement research, many Board members, including those representing industry, concluded that little or no progress would be made in this critical area.

Dewey Proposes Enhancement Team Strategy

The NPGRB decision to respond with the strongly stated letter in favor of federal support was also a result of discussion generated by Dewey's proposal for establishing national germplasm enhancement teams.

According to the recently-appointed NTA, germplasm enhancement - defined by Dewey as the identification, accumulation, and incorporation of genes from diverse sources into germplasm pools that can be used by plant breeders - is "probably the most neglected and unorganized aspect of the NPGS."

To remedy this neglect, Dewey recommended that germplasm enhancement teams, consisting of federal and state scientists, be established for each major crop. The scientists would represent specialized disciplines including genetics, cytogenetics, tissue culture, molecular biology, microbiology, physiology, entomology and pathology. The teams' mission would be to develop unique and broad-based germplasm pools for plant breeders, the primary NPGS user community.

Instead of adding a large number of new scientists to serve on the teams, Dewey said the slots could be filled by redirecting or relocating those currently in the system. In his opinion, the majority of federal scientists now engaged in plant breeding "could very easily be diverted to the more basic genetic and cytogenetic activities associated with enhancement."

The NPGS Crop Advisory Committees (CACs) would play a prominent role in guiding the activities of the teams, said Dewey, whose NTA role involves direct liaison with the CACs (see *DIVERSITY* vol. 1, no. 1, p. 14). Dewey recently asked the CACs to provide him with specific enhancement plans for their crops.

Such an approach would fit well into the new OMB budget guidelines for federal research as described by Bertrand and would also coincide with current Agricultural Research

Service (ARS) policy that sees variety development as a private sector enterprise. With the decreased emphasis on plant breeding by federal scientists, Dewey sees the mission of the proposed germplasm enhancement teams as "the connecting link between the service functions (acquisition, maintenance, distribution, and evaluation) of the NPGS and the private sector's applied breeding programs." By moving away from plant breeding to germplasm enhancement Dewey argued, ARS will:

- * reduce duplication in breeding efforts among federal, state, and private agencies;
- * generate basic information that will be useful to a broad spectrum of biological and agricultural science; and
- * strengthen the remaining plant breeding programs (public and private) by providing them with new and unique germplasm pools.

Assistant to the Deputy Administrator for Germplasm Quentin Jones told *DIVERSITY* that he favors the enhancement plan proposed by Dewey. Jones and his staff are currently eliciting feedback on the plan from members of the NPGS and are exploring what options are available to implement the proposed program.

New NPGRB Members Briefed on Policy Issues

"The National Plant Genetic Resources Board (NPGRB) is one of the most important advisory groups to the Department of Agriculture," NPGRB Chairman Anson Bertrand told the new members of the 1982-84 Board at the group's first meeting last month in Washington, D.C. (see p. 3 for list of new members).

The Board members received an intensive two-day briefing on the role played by the NPGRB and its members in effecting National Plant Germplasm System (NPGS) policy changes since the advisory group was established in 1976.

NPGRB Executive Secretary Clarence Grogan explained that the objective of the Board, composed of agricultural scientists from federal, state, and private organizations, is to advise the Secretary of Agriculture and officers of the National Association of State Universities and Land Grant Colleges (NASULGC) on addressing national needs and identifying high priority programs for conserving and utilizing plant genetic resources, including collection, maintenance, and description of genetic stocks, and utilization of the stocks in plant improvement programs.

The duties of the NPGRB are: (1) to inform itself of domestic and international activities to minimize genetic vulnerability of crops; (2) to formulate recommended actions and policies on collection, maintenance, and utilization of plant genetic resources; (3) to recommend actions to coordinate the plant genetic resources plans of several domestic and international organizations; (4) to recommend policies to strengthen plant quarantine and pest monitoring activities; and (5) to advise on new and innovative approaches to plant improvement.

Grogan also briefed the new Board on past NPGRB initiatives that have contributed to the growth of the NPGS. These include establishment of informal crop advisory committees and the identification of curators for the major crops; increased resources for collecting endangered crop germplasm; upgrading and planning for storage facilities; an increased awareness of the need to develop unadapted germplasm in a form useful to plant breeders; and the need to have an adequate information system to serve all prospective users.

Observers point to the first official action taken by the group - a letter to USDA Secretary Block urging support for germplasm enhancement activities - as an example of the new Board's determination to continue its activist role.

NPGRB Meeting Highlights

Reports and briefings on specific issues of concern to the NPGS at the

May 14-15 meeting included the following:

• **A FY 83 and FY 84 NPGS Budget update** by Assistant to the Deputy Administrator for Germplasm Quentin Jones (see story p. 4). Jones also outlined the **NPGS plan for preservation and utilization of the Latin American Maize Accessions**. USDA and Pioneer Hi-Bred International, Inc. are cooperating on this project to increase and evaluate Latin American Maize held by the Mexican Agricultural Research Institute (INIA), CIMMYT (Centro Internacional de Mejoramiento de Maiz y Trigo), and ARS. Planning for tests and grow outs has been initiated, according to Jones.

• A status report on the **National Plant Germplasm Committee (NPGC) Plan for the National Fruit and Nut Germplasm Repositories** by NPGC Chairman Wilson Foote. Of the 12 proposed repositories called for in the plan to cover over 30 major clonally propagated crops, the two sites at Corvallis, Oregon, and Davis, California, are essentially completed. A third repository for apples and Eastern grapes is being planned for Geneva, New York. Foote also discussed the **role of the NPGS in tropical crop germplasm**. He identified a major need for a subtropical location where daylength and temperature-sensitive crops can be increased and grown. He suggested that part of the proposed US/Mexican germplasm agreement could include arranging grow-outs in Mexico. Finalization of that agreement may have to be delayed until after the upcoming Mexican presidential election, David McClintock, State Department Food and Agriculture Advisor, told the Board.

• A report by new board member John Genys on the **Maintenance, Evaluation and Distribution of Forest Tree Germplasm**. Following the presentation, the Board passed a motion to "encourage scientists in forest tree genetics to form a crop advisory committee on forest trees."

• A proposal by the **Board on Agriculture and Renewable Resources of the National Academy of Sciences (NAS)** to undertake a

study of the Evaluation and Utilization of Plant Genetic Resources. NAS representative James Tavares said the goal of the NAS study would be to encourage a more widespread and efficient utilization of plant germplasm resources. Though some NPGRB members expressed concern that such a study would duplicate processes already incorporated in the NPGS and possibly take much needed funds away from germplasm evaluation and other activities, Tavares contended the study would not duplicate current efforts. The proposed NAS study could greatly enhance the work of the NPGS by clarifying the issues for the scientific community and the general public in much the same way that the 1972 NAS study on genetic vulnerability did, Tavares argued (see DIVERSITY vol. 1, no. 1, p. 2). NAS is currently investigating funding strategies for the proposed project.

• An overview of the computerized information system (**GRIP/GRIN**) for the NPGS by ARS computer specialist Richard Cooper. Cooper plans to provide an outline for implementing the Germplasm Resources Information Network and an explanation of how the user community can access the system in a future issue of DIVERSITY.

• A review of the **General Accounting Office (GAO) report** released last December that criticized USDA management of the **NPGS** (see DIVERSITY vol. 1, no. 1, p. 8). Chairman Bertrand emphasized his disagreement with many of the criticisms made by the GAO, saying that the USDA was in the process of making many of the proposed adjustments prior to the reports release. Bertrand advised however, that the new NPGRB members be well-briefed on the GAO study since the Congress will use it as basis for future deliberations on the NPGS,

Future Issues for the NPGRB

According to Executive Secretary Clarence Grogan, some of the issues likely to be addressed by the new Board include the role of biotechnology, including genetic engineering and cell and tissue

culture; germplasm enhancement and use; and international initiatives to foster germplasm exchanges.

Prior to adjournment, the Board elected Robert Kalton, Land O'Lakes Inc., to serve as NPGRB Vice Chairman. The Board joined Grogan in praising the contributions made by Chairman Bertrand during his tenure on the Board. "He was the man on the front line for germplasm at USDA and he will be missed," said the NPGRB Executive Secretary. (On July 12 Bertrand will become Director of the Office of Agriculture in the Science and Technology Bureau in the Agency for International Development.)

1982-1984 NPGRB Members

Chairman

Anson R. Bertrand
Director, Science and Education, USDA

Vice Chairman

Robert R. Kalton
Land O' Lakes, Inc.

Executive Secretary

Clarence O. Grogan
*Assistant Deputy Administrator
Cooperative State Research Service
USDA*

Federal

Howard J. Brooks
Agricultural Research Service, USDA
Stanley L. Krugman
Forest Service, USDA

State

George A. Berger, Jr.
*Dean, College of Agriculture
Arkansas State University*
Fred A. Bliss
*Department of Horticulture,
University of Wisconsin*
John B. Genys
*Appalachian Environmental Laboratory
University of Maryland*
M. Rosalind Morris
*Department of Agronomy,
University of Nebraska*
Eldon E. Ortman
*Department of Entomology,
Purdue University*
Calvin O. Qualset
*Department of Agronomy & Range
Science, University of California*
Wilbert A. Russell
*Department of Agronomy,
Iowa State University*
H. Grant Vest, Jr.
*Department of Horticulture,
Oklahoma State University*

Industry

Charles E. Geise
Del Monte Corporation
 Arthur L. Hooker
Pfizer Genetics, Inc.
 Drew R. Ivers
Land O'Lakes-Felco
 Robert R. Kalton
Land O'Lakes, Inc.

international Foundation

Kenneth O. Rachie
The Rockefeller Foundation

Ex-Officio Member

Wilson H. Foote
Associate SAES Director
Oregon State University

International Germplasm Board Meets In Rome

The International Board for Plant Genetic Resources (IBPGR)* met recently for the group's ninth annual meeting held at IBPGR headquarters in Rome. Among the subjects under discussion was an unreleased report by the IBPGR *Ad Hoc* Advisory Committee on Seed Storage. The 48-point report notes that liquid nitrogen storage at the National Seed Storage Laboratory (NSSL) in Fort Collins, Colorado "may well offer a satisfactory technique with the advantage of effectively infinite longevity." Two other alternative storage strategies explored by the Committee - the use of solar energy and naturally occurring cold environments such as Antarctica for storage - were found to be either technically or economically infeasible at present. Cryogenetic storage of germplasm will receive further attention at the IBPGR/NPGC sponsored workshop at Fort Collins, Colorado in August. (see *DIVERSITY* vol. 1.) no. 1, p. 25).

The report also addressed the need to train up to 50 people in seed physiology over the next two years. To fill this need, the Committee tentatively recommended in-service training by two to three month visits to appropriate international agriculture research centers or the establishment of a three to six month structured course.

The Seed Storage Committee further recommended that seed physiologists compile a practical manual for germplasm collectors that would "emphasize simple procedures and techniques to insure that initial seed quality deteriorates as little as possible."

The Committee, chaired by University of Reading (United Kingdom) Professor E. H. Roberts, was convened last year to advise the IBPGR on all aspects of seed storage. As a result of the Committee's report, which includes an assessment of ongoing IBPGR support to seed physiology projects, the Board hopes to: (1) be better able to devise a global action program and (2) be able to accelerate the germplasm conservation activities which are key parts of the Board's proposed "Strategy and Plan of Action 1981-86." (The plan was published in 1981 and can be obtained by contacting: IBPGR Executive Secretariat, Crop Genetic Resources Center, Plant Production and Protection Division, Food and Agriculture Organization of the UN, Via delle Terme de Caracalla, 00100 Rome, ITALY.)

The International Board also discussed a global plan for implementing the IBPGR computerized Information Program. In order to ensure increased data capability within the global network of plant genetic resources, the Board recommended global, regional, and

individual "training schemes," based on the common theme of data exchange and standardization. Progress has been made toward making basic descriptor lists from national germplasm program networks uniform with the IBPGR lists. The individual country programs can then add special descriptors, if desired.

The Board plans to publish an IBPGR manual by the end of the year that will cover initial data collection, and information updating. The proposed manual will also cover viability testing, collection planning, fundraising, and rapid answering of requests.

IBPGR Executive Secretary Trevor Williams told members he expects the IBPGR/Royal Tropical Institute (Amsterdam) study on the genetic resources of tropical and sub-tropical fruits and nut trees to be completed this year. The study will be presented in final form at the Board's tenth annual meeting next year.

The IBPGR agreed to initiate a study on the genetic resources of nitrogen-fixing crop plants (including forages) and approved expenditure of up to \$20,000 on this activity. The Board also agreed to several of the recommendations made at the 1981 FAO/UNEP/IBPGR Conference, including:

- more collecting missions for wild relatives of cultivars will be carried out;
- a program to explore, collect, conserve, characterize, evaluate, and use forage plant genetic resources will be initiated following the appointment of an IBPGR forage officer and the submission of his study;
- the IBPGR will continue to place priority on tree species in arid and semi-arid zones for fuel;
- a study of seed dormancy in the wild relatives of crops is being carried out as part of the IBPGR program on seed physiology.

Proposals for establishing regional germplasm storage facilities in Cuba and Nigeria also received initial consideration at the Rome meeting.

The International Board's Executive Committee was meeting at press time and will meet again next fall in Washington, D.C.

*The basic function of the Board, established in 1974 by the Consultative Group on International Agricultural Research (CGIAR), is to promote an international network of genetic resource centers to further the collection, conservation, documentation, and utilization of plant genetic resources - particularly those of significant economic importance. CGIAR is sponsored by the World Bank, the United Nations, and 15 donor countries. The IBPGR is one of thirteen CGIAR-supported international agriculture centers. (USDA Assistant to the Deputy Administrator for Germplasm Quentin Jones is the US member of the 15-member International Board and also serves on the IBPGR Executive Committee.)

A future issue of *DIVERSITY* will include an overview of CGIAR and will profile the germplasm-related activities of the international centers.

Proposed ARS Germplasm Budget for FY 83

“Plant germplasm has emerged from the dungeon of neglect . . . We are still elated and blinking at the bright light, but we have confidence that there is a real commitment on the part of our administrators, and supportive attitudes in the OMB and Congress, to make sure that this country’s plant genetic resources will be properly maintained and utilized,” Assistant to the Deputy Administrator for Germplasm Quentin Jones told the recent meeting of the National Plant Genetic Resources Board (NPGRB). Jones was referring to the significant increases for germplasm activities proposed in the FY 83 budget (DIVERSITY vol. 1, no. 1, p. 5).

“We realize that there are very serious pressures that demand lean federal budgets, but it is also recognized that our agriculture generates more wealth than any other segment of our economy and that it can only continue to do so if,” according to Jones, “we have the genetic resources to support increased efficiency in food, feed, and fiber production.”

If the \$3.8 million increase proposed for Agricultural Research Service plant germplasm activities in FY 83 survives the budget process, the funds will probably be allocated as follows:*

Maintenance	\$1,000
Pullman, WA, RPIS (many crops)	100
Ames, IA, RPIS (many crops)	100
Experiment, GA, RPIS (many crops)	100
Geneva, NY, RPIS (many crops)	
Fort Collins, CO, NSSL	200
Byron, GA (bamboo)	40
Stoneville, MS (soybeans)	90
Urbana, IL (soybeans)	70
Beltsville, MD (small grains)	100
Miami, FL (subtropical fruits)	
Mayaguez, PR (tropical fruits)	90
Oxford, NC	40
Madison, WI (potato)	40
TBD (sweet potato)	60
Total	1,195,000

Evaluation	
Wheat	300
Corn	250
Alfalfa	60
Tomatoes	135
Beans	75
Oats	100
Potato	50
Subtotal	970
Facilitating crop advisory committees	100
Total	1,070,000

Enhancement

Beans, East Lansing, MI	
Mayaguez, PR	100
Prosser, WA	80
Potatoes, Prosser, WA	
Aberdeen, ID	75
Cotton, Stoneville, MS	150
Plums, Byron, GA	150
Citrus, Orlando, FL	150
Range Grasses, Logan, UT	150
Millet (Pennisetum), Tifton, GA	120
Total	1,100,000

*All of these figures are subject to revision.

Jones said that the proposed FY 84 increase for the NPGS is currently targeted at \$10 million, but this too is subject to the ups and downs of the current budget debates on Capital Hill.

News In Brief

• **Private sector members of the NPGS will assist the National Seed Storage Laboratory (NSSL) and the Plant Introduction Stations in a cooperative germplasm revitalization and replenishment program.** Thirty two US seed companies responded favorably to a National Council of Commercial Plant Breeders (NCCPB) survey asking whether Council members would be interested in growing out small quantities of seed from the NSSL on an annual basis. The participating companies expect to absorb all the costs connected with the replenishment. NCCPB Secretary-Treasurer, Robert Falasca expects more member companies to participate after the program gets underway. Implementation of the program will be arranged jointly by the appropriate crop germplasm curators and the cooperating companies.

• **The Council for Agricultural Science and Technology (CAST) recently appointed 26 members to a task force that will report on Germplasm Preservation and Utilization for Agricultural Purposes.** The task force, chaired by Dr. Harley Otto, Minnesota Crop Improvement Association, expects to complete a first draft report by October. For further information on CAST reports, write CAST, 250 Memorial Union, Ames, Iowa 50011.

• **Pioneer Hi-Bred International, Inc. is sponsoring a three-year series of invitational forums on plant breeding research.** The first forum, scheduled to be held this August, will address the **Relationship Between Public and Private Plant Breeding Efforts and the Outlook for Fundings.** The 1983 forum will focus on the **Preservation and Use of Exotic Germplasm to Improve**

Varieties and Broaden Genetic Base, followed by the final forum in 1984, **Exploring New Genetic Engineering Techniques.** A forum Resource Council will appoint 35 to 40 national leaders in various aspects of plant breeding to participate in the forums. The objective of the three-year program, according to Pioneer, will be a series of briefings “to provide information to people who make or influence funding decisions on the need for increased plant breeding research and requirements for meeting those needs.”

• **ARS Administrator T.B. Kinney recently appointed the following members to the Site Assessment Working Group for the Small Grains Facility: Douglas Dewey, ARS, Logan, Utah; Willis Skrdla, ARS, Ames, Iowa; Don Schrickel, The Quaker Oats Co., Chicago, Illinois; and John**

Bouwkamp, University of Maryland. **Calvin Qualset**, University of California, Davis, will chair the working group. After visits this summer to Beltsville, Maryland, Aberdeen, Idaho, and to Ft. Collins, Colorado, the **group plans to issue a report recommending the most appropriate site for the World Collections of Small Grains facility**. All members of NPGS agree that the System is in dire need of a new Small Grains facility and are anxious to expedite site selection.

Pressure is on in Washington for a decision on the facility issue as evidenced by the number of congressional inquiries sent to USDA Secretary Block in recent weeks. Congressman John Breaux (D-La.), George Hansen (R-Idaho), Larry E. Craig (R-Idaho), and Senators James McClure (D-Idaho) and Steve Symms (D-Idaho) are among those pushing for a site decision.

- The former **Plant Taxonomy Laboratory**, a component of the Plant Genetics and Germplasm Institute (PGGI) at the Beltsville Agricultural Center (BARC), has been **renamed the Plant Exploration and Taxonomy Laboratory (PE&TL)** to better reflect the current activities of the Laboratory. **Gudrun Christenson, Sandra Sauffer, and Richard Spjut** - botanists formerly associated with the anticancer plant collecting program - have been **reassigned to the PE&TL**. **A. Jack Oakes, T. Austin Campbell, and Richard E. Cooper** were **reassigned from the Germplasm Resources Laboratory to the Economic Botany Laboratory (EBL)**. Their research will remain the same except that Dr. Oakes will turn over **curatorship of the national Rice Collection to David H. Smith**, curator, USDA Small Grains Collection.

- The **appointment of Howard Waterworth** to the position of **National Research Program Leader for Plant Pathology/Nematology** was announced May 21 by ARS Administrator T. B. Kinney. Waterworth was Chief of the Germplasm Resources Laboratory, part of the PGGI at BARC. **Wayne Porter** has been **named Acting Chief of the Germplasm Resources Laboratory**.

- **The second United Nations Conference on the Global Environment**, held last month in Nairobi, Kenya, targeted "efforts to preserve genetic resources" as one of its priority recommendations to the United Nations Environment Program (UNEP) governing council. The first U.N. environmental conference, held in Stockholm ten years ago, had been "a powerful force in increasing public awareness and understanding of the fragility of the human environment," according to the declaration adopted by the 105 nations attending the meeting. The conference also recommended the creation of an independent commission to prepare strategies for protecting the environment beyond the year 2000.

- **USDA Secretary John Block ordered a stop May 20 to Department checks on the political loyalties** of scientists who offer technical advice on grant applications under the USDA Competitive Grants Program. The action came after the *Washington Post* carried a front page story charging that "such checks had not been imposed on government peer review panels since the 1950s." Under the program about 80 university scientists are selected to review 800 applications for agricultural research grants from the \$16 million of available funds. A Block spokesman acknowledged that the practice was done under a USDA interpretation of policy and not under orders from the White House or the Office of Management and Budget.

- **Robert Forsberg**, Chairman of the American Oat Workers Conference and Professor of Agronomy at the University of Wisconsin and **Charles Murphy**, Professor at North Carolina State University, recently **testified in support of the FY 83 budget increase for germplasm activities before the House and Senate Subcommittees on Agriculture, Rural Development and Related Agencies on Appropriations**. Murphy (Chairman of the Germplasm Task Force that produced the NPGS Long Range Plan - DIVERSITY, vol. 1, no. 1, p.6) pointed out that the \$3.8 million increase for NPGS activities

was still \$4.5 million under the Task Force recommendation, "I am especially concerned," Murphy told the congressional panels, "that the essential germplasm evaluation activities will be further delayed by inadequate funding." Both NPGS proponents emphasized the need to expedite construction of the USDA Small Grains Collection facility and recommended an additional \$2 million be appropriated for the project. **Don Schrickel**, Director of Research and Development, The Quaker Oats Co., **also testified** at the House hearing **in support of budget increases for the Small Grains Collection**. Schrickel spoke before the Subcommittee in his capacity as Chairman of the Milling Oats Improvement Association.

- **The Potato Crop Advisory Committee (CAC)** met in April in conjunction with the IR-1 Technical Committee. The Potato CAC discussed the administration of \$93,120 from the Cooperative State Research Service (CSRS) for evaluations and as a part of this discussion ranked high priority descriptors as follows: spindle tuber (evaluation of all true seed), leafroll (tuber-bearing accessions evaluated first) Colorado potato beetle, and glycoalkaloids (evaluate survivors of Colorado potato beetle test). It was decided that the regional CAC representatives would perform site visits during grow-outs and serve as regional contacts. The committee also drafted a germplasm enhancement plan. Other CAC News: **The Seventh Trifolium Conference** agreed to form **a crop advisory committee for clovers and forage legumes** (other than alfalfa). The **formation of a new CAC for sunflowers** is currently being addressed by the National Sunflower Association. **The Pea CAC** has finalized a germplasm evaluation proposal rating eight disease evaluations as its highest priority. **The Tomato CAC** in cooperation with Drs. C.U. Hall and W.L. Summers (Dept. of Horticulture, Iowa State University) have finalized plans for administration of \$27,900 CSRS Special Grants for tomato germplasm evaluations. **The Cotton CAC** met for the first time June 8 in San Antonio, TX in conjunction with

the Beltwide Cotton Planning Conference. For information contact: R.R. Bridge (601) 686-9311 or R.J. Kohel (713) 846-2419. **Formation of a Forestry Advisory Committee** was recommended at the May NPGRB meeting. **The Alfalfa CAC** will meet October 5, 1982 in Ames, Iowa in conjunction with NC-83 meetings.

- **Inauguration ceremonies** were held April 19 at Tel Aviv University, Tel Aviv, Israel, to dedicate the "Institute for Cereal Crops Improvement Through the Utilization of Gene Pools and Their Wild Relatives" and the institute's two laboratories, "The Lieberman Germplasm Bank" and "The H.C. Murphy Rust Research Lab." A more detailed article on the new facility will appear in a future issue of DIVERSITY.

Press Time Briefs . . .

- **The establishment of a National Institute of Agriculture modeled on the National Institute of Health and passage of a National Agriculture Education Act** were just a few of the **controversial proposals offered by a panel of federal, state, university, and private sector witnesses testifying June 9 before a House Science and Technology Subcommittee.** The hearing was the first of two congressional sessions called for by Subcommittee on Investigations and Oversight Chairman Albert Gore, Jr. (D-Tenn.) to examine the impact of genetic engineering on agriculture in the United States. Many of the witnesses agreed that public misperceptions about the potential scientific and commercial applications of genetic engineering has intensified the uncertainty that exists among many scientists in both public and private institutions. At the crux of the five-hour hearing was the **severe lack of funding and future availability of trained personnel for both basic and applied agricultural research.** Many observers feel that this deficiency seriously threatens the supremacy of American agriculture. Comparing the 1.5% of the USDA annual budget appropriated for research with the 45% the Department of Defense plans to spend on research activities,

Gore expressed **concern that the US was falling so behind in this "incredibly important national venture."** ARS scientist Gerald Still acknowledged that the US "is not investing appropriately in this fundamental area," and said that he personally endorsed the concept of a National Institute of Agriculture that would be independent of USDA but responsible to the agriculture committees of Congress. Gore said that Still's suggestion - and the proposal by Sheldon Murphy, a private consultant with the Performance Management Group, for a National Agriculture Education Act that would encourage a multi-disciplinary transfer of knowledge - would be considered by the Subcommittee as it continues its investigation. **The Subcommittee is expected to release a report** on its findings later this year. Other witnesses included Winston Brill, University of Wisconsin and Director of Research for the Cetus Madison Corporation; Ralph Mott, North Carolina State University; Aloysius Wood, University of Florida; Nicholas Frey, Pioneer Hi-Bred International, Inc.; and Robert Kaufman and John Marvel, Monsanto Agricultural Products Company. **(DIVERSITY'S deadline precluded further coverage at this time. For information regarding copies of the testimony or the hearing transcript, contact the Subcommittee on Investigations and Oversight, (202) 226-3639.)**

- In a related development, **DIVERSITY has learned that the White House and the Rockefeller Foundation are co-sponsoring a "Workshop on Critical Issues in Agricultural Research" intended "to develop a strategy for strengthening America's agricultural research."** Selected participation at the June 14-15 meeting has been limited to 14 persons from academia, government, and the private sector. The White House invitation, signed by Denis J. Prager, Assistant Director, Office of the Science Advisor to the President, reportedly asserts that "America's agricultural research enterprise - at least the federal-state partnership, traditionally thought of as comprising the enterprise - is in failing health,

not able to sustain its level of past performance and not up to meeting out high expectations of it." According to the letter, the workshop's "unstructured discussions" will lead to "defining specific steps in implementing [a] strategy for strengthening that enterprise and mobilizing the public and private sector energy and resources required to assure its future success."

Meetings

- **The US Man and Biosphere Program, US Committee for UNESCO is sponsoring an International Symposium and Workshop on the Application of Genetics to the Management of Wild Plant and Animal Populations in Washington, DC., August 9-13, 1982.**

The purpose of the symposium is "to provide perspectives on the potential contribution of genetics to the management of biological resources." Hotel reservations recommended by July 18. Contact: Christine Schonewald-Cox, Div. of Natural Sciences, National Park Service - 494, Dept. of the Interior, Washington, D.C. 20240, (212) 523-5139.

- **The National Plant Germplasm Committee and International Board for Plant Genetic Resources** are jointly sponsoring a workshop on **Cell and Tissue Culture and Cryogenic Storage** at Colorado State University, Fort Collins, Colo. (303) 491-5863, **August 16-19, 1982.**

- **The Thai National Plant Genetic Resource Coordinating Subcommittee** of the Agriculture and Biology Branch of the National Research Council of Thailand is organizing a National Seminar on Plant Genetic Resources to take place **September 2-3, 1982** at the National Research Council auditorium at **Bangkhon, Bangkok.** Contact: IBPGRSEAP Regional Officer, FAO Regional Office for Asia and the Pacific, Maliwan Mansion, Phra Atit Rd. Bangkok 2, Thailand.

- **The Nitrogen Fixing Tree Association (NFTA),** in collaboration with the **Laboratory of Nitrogen Fixation of Tropical Agricultural Legumes (NIFTAL)** with partial support from the **Rockefeller Foundation, is organizing an International Workshop on "Acquisition and Management of Germplasm of Nitrogen-Fixing Trees with a Potential Role in Development"** to be held at the

Rockefeller Foundation Study and Conference Centre, **Bellagio, Italy** during **September 20-24, 1982**. Limited funds are available to assist in travel support and all local costs in Bellagio will be covered by the sponsors. Contact: Prof. James L. Brewbaker, President, NFTA, P.O. Box 680, Waimanalo, Hawaii, 96795, U.S.A.

• **The 15th International Congress of Genetics will meet December 1983 in New Delhi, India** - three to four thousand geneticists are expected to attend. **Symposium theme: "Genetic Conservation - Microbes to Man"**; Sir Otto Frankel will develop a symposium on New Directions. There will also be a genetics film festival. The IBPGR plans to sponsor a training session just prior to the Congress in New Delhi, so that students can stay on for the Congress. (Registration deadline is May 1, 1983. Contacts and registration information will be included in the next issue of **DIVERSITY**.)

DIVERSITY

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In the Next Issue...

- Cooperative State Research Service (CSRS) contributions to the NPGS will be covered in an article by John Patrick Jordan, Director of the ARS Experiment Station, Colorado State University.

- Viewpoint by David McClintock, State Department Food and Agriculture Advisor, on Politics and Economics of Genetic Diversity.

- ARS Phaseolus Exploration to Mexico

- Details of the Cell and Tissue Culture and Cryogenic Storage Workshop sponsored by the NPGC/IBPGR.

- Expanded coverage of the 32 companies that will be assisting the NSSL and Plant Introduction Stations in a seed replenishment and revitalization program.

- Germplasm programs funded by the Rockefeller Foundation, with a special report on the Foundation's construction of a germplasm facility in the People's Republic of China.



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