

United States
Department of
Agriculture

Soil
Conservation
Service

Boise,
Idaho



History of the Aberdeen Plant Materials Center



History of the Aberdeen Plant Materials Center

Edited by
Sharon L. Norris
Public Information Officer
USDA-Soil Conservation Service

Contents

Introduction	1
The Aberdeen PMC	3
The Aberdeen Nursery Unit <i>Russell H. Stark</i>	6
The Fifties <i>Donald S. Douglas</i>	9
Grass Seed Industry Established	12
The Program Grows <i>Harold L. Harris</i>	13
The Search for Plants Continues <i>Ronald B. Foster</i>	16
Two Decades of Progress <i>Charles G. Howard</i>	21
Plants Tested	25
Plant Materials Hall of Fame	27

June 1989

History of the Aberdeen Plant Materials Center

Introduction

Since its earliest days, the Soil Conservation Service has relied on plants to solve soil and water conservation problems.

SCS' predecessor, the Soil Erosion Service, furnished seed, seedlings, equipment, and labor to farmers through the Civilian Conservation Corps (CCC) and the WPA.

The CCC boys collected seeds for nursery production of seedlings for reforestation and harvested native grass seed for revegetating rangeland in semi-arid areas.

The move to centralize soil conservation work in the new Soil Conservation Service in 1935 led to a rapid increase in personnel, funds, and responsibilities. By mid-1936, SCS supervised 48 nurseries, 147 demonstration projects, 23 experiment stations, 454 CCC camps, and over 23,000 WPA workers.

In November 1938, SCS assumed administration of the Land Utilization Program which involved the purchase and rehabilitation of private submarginal agricultural land. Most of the land acquired had been purchased before the program was transferred to SCS. The southeastern Idaho project, LU-1, involved thousands of acres in Oneida, Cassia, and Power Counties that early settlers had tried to farm but then abandoned, because they couldn't make a living. These lands later became the Curlew National Grasslands, one of several national grasslands under the direction of the Forest Service.

The nurseries were well named in those days. They produced seeds and plants by the millions. Tons of seed were harvested from native stands to meet the needs of conservation work.

During the Depression, the leaders of the soil conservation program looked to the future of conservation and long-range working arrangements with farmers. CCC and WPA labor wouldn't be available forever. Nor was conservation a matter of simply fixing a problem. Sustained interest among farmers must be promoted.

The mechanism for providing a continuing program was the conservation district. President Roosevelt sent the "Standard State Soil Conservation District Law" to the states' governors on February 27, 1937. If the state legislatures and governors enacted a law which included the basic elements of the standard act, then local groups could organize conservation districts. USDA would provide assistance, primarily trained personnel, while the districts set the priorities and directed the work.

In Idaho, the task of convincing the legislature that a law authorizing formation of conservation districts was in the best interest of the state's soil and water resources fell to R. Neil Irving. He entered on duty with SCS as state coordinator, headquartered at Moscow, Idaho, on December 1, 1938. One month later, he took up residence in Boise along with members of Idaho's 25th Legislature.

Arthur Snow, an influential legislator from Latah County, agreed to introduce the standard law as a bill. Although Snow had the respect and confidence of his fellow legislators, some were bitterly opposed to it. So were the livestock people, who viewed districts as a device government would use to stop their free access to public land.

Because of the opposition, Irving and a friend rewrote the bill. The new version was less objectionable. The Legislature passed Idaho's Soil Conservation District Law, Senate Bill 136, on March 1, 1939; Governor C.A. Bottolfsen signed it into law on March 9, 1939. The law also included provisions for creation of a state soil conservation commission to help form and coordinate soil conservation districts.

Not surprisingly, many of the demonstration and CCC work areas in Idaho were the first to organize districts. In the year following passage of the law, Latah, Bear Lake, Portneuf, Squaw Creek, and Mayfield (which later became Elmore) districts were organized. By the end of 1946, there were 22 districts; 10 years later, 48. The number of districts reached an all-time high of 55 in 1962. Through consolidations, the number was reduced to 51 in 1974, where it remains today. The entire State of Idaho, with the exception of some cities and a portion of the Idaho National Engineering Laboratory, is within a conservation district.

These conservation districts soon became an important part of the plant materials program. They defined conservation problems in the communities they served. Their recommendations formed the basis for establishing priorities for plant testing at the Aberdeen PMC. Field testing away from the PMC was done on the land of individuals or groups cooperating with conservation districts. Finally, district supervisors helped demonstrate and promote the use of new plants proven beneficial to conservation programs.

Now, on to the story of the Aberdeen PMC.

The Aberdeen Plant Materials Center

SCS established a Nursery Unit at Aberdeen through a cooperative agreement with the Idaho Agricultural Experiment Station. The agreement provided for systematic and cooperative plant evaluations, use of lands and facilities at branch stations located at Aberdeen and Teton, and office space. Russell H. Stark entered on duty as Nursery Unit Manager in June 1939.

The nursery served an area relatively uniform in climatic conditions, agricultural practices, and plant needs. The original service area included all of Idaho up to the southern border of Idaho County. The area expanded in 1954 when the northern half of Utah was added and again in 1964 with the addition of the northern half of Nevada's Tonopah Soil Conservation District. The PMC now serves most of Nevada and Utah and portions of California and Oregon. It includes 16 major land resource areas of similar climate, topography and soils.

SCS rented a 35-acre farm on the south edge of Aberdeen for seed increase and seed production evaluations and a separate building about one block north of the farm for seed cleaning and equipment storage.

The nursery's first field evaluation planting, made in 1939, was for the purpose of evaluating seed production of grasses and legumes under irrigation.

That same year, the nursery started an intensive range reseeding study in cooperation with the University of Idaho on land at the Aberdeen Airport. It was designed to determine the best seeding and management methods on non-irrigated soils. Parts of the seedings were destroyed when new runways were built, and the study was re-established in 1947 on lands lying adjacent to the airport. The lease on that land expired in March 1956. Since the owner planned to convert the land to an irrigated farm unit, the study came to an end. Results of the study provided the knowledge and impetus for seeding more than one million acres of privately owned arid rangelands within the PMC service area.

In 1940, the nursery staff established a second field evaluation planting at the Teton Branch Experiment Station to evaluate plant adaptation, culture and management techniques in areas where annual precipitation averaged 13 to 14 inches. The site represented better rangeland and nonirrigated cropland.

In 1953, all 24 of the SCS nursery units were ordered closed as the result of a move by Secretary of Agriculture Ezra Taft Benson to phase out SCS and incorporate its activities into the Cooperative Extension Service.

The Aberdeen Nursery Unit plowed seedings under, terminated leases for the seed farm and buildings, and reassigned personnel and equipment to other locations. Studies at the Aberdeen Airport and Teton were also terminated.

SCS survived as an agency, but with significant reorganization. Regional offices were closed and employees transferred to enlarged SCS state offices. Research activities were transferred to the Agricultural Research Service and Land Utilization Projects to the Forest Service.

Only five nursery units were authorized for retention. Aberdeen was among them because of strong support from conservation districts and their state associations in Idaho, Nevada and Utah, chambers of commerce, farmers, ranchers, and Congressmen.

The nursery units were renamed plant materials centers, and the emphasis of these centers directed to the assembly, evaluation, selection and cooperative release of superior varieties. Commercial seed growers and nurseries would produce seeds for sale to farmers.

Because the new direction of the program required extensive off-center testing and providing technical assistance to commercial growers, SCS established the new position of plant materials specialist.

SCS reactivated the PMC by late fall of 1954, and signed a new cooperative agreement with the Idaho Agricultural Experiment Station. The agreement provided for better coordination of activities and again provided land at the Aberdeen and Tetonia stations to continue testing new strains of grasses and legumes.

The PMC needed more land to produce foundation seeds and strains of promising plants for field-scale planting trials. Unfortunately, the owner of the lands and buildings used prior to closure set new rental fees beyond the reach of available funds.

Supervisors of the South Bingham Soil Conservation District decided the PMC needed a permanent home to safeguard its continuing contribution to the conservation and grassland movement of the Western States. They found a suitable 45-acre farm for sale two miles north of Aberdeen. Their idea was to buy the farm and then lease it to SCS for PMC operations.

There was only one big hurdle -- raising money to make the purchase. The South Bingham SCD, just a year old and without a source of income, explored many possibilities. No other district, to its knowledge, had taken such a step. This innovative district sought legal advice and then asked conservation districts in Idaho, Utah, and Nevada to loan them money so they could buy the farm.

Districts responded enthusiastically and rapidly. Within a month, South Bingham SCD had offers for loans varying from \$100 to \$3750. The District drew up contracts giving each lender a first mortgage on a percentage-of-loan basis on the farm and a promissory note at four percent interest to be repaid annually.

Conservation districts making the loans included White Pine at Ely, Nevada; Weber at Ogden, Utah; and Oneida, Malad; Gooding, Gooding; Power, American Falls; Dry Creek, Eagle; Boundary, Bonners Ferry; North Side, Jerome; Latah, Moscow; Bear Lake, Montpelier; Benewah, St. Maries; and Nez Perce, Genesee, in Idaho.

With all the paperwork done, the District leased the farm to SCS for PMC operations. A partial PMC staff reassembled equipment and seed and began re-establishing seed fields and initial evaluation studies in June 1955. By late fall, restaffing of the PMC had been completed.

SCS received funds in 1955 to maintain nursery materials, pending a decision on operation of the PMC by the State. The Idaho Legislature declined to take over this responsibility, because they held that the operation was of national scope since the PMC directly served Idaho, Utah, and Nevada, as well as other Western States. As a result, SCS funded the Center.

A year later, the owner of the PMC seedhouse terminated the lease, leaving the PMC without seed cleaning or seed storage facilities. No other suitable buildings were available, so the South Bingham SCD built a Quonset on the farm for seed cleaning and storage. They financed the \$5,900 building by selling some equipment they owned and by borrowing funds at four percent interest from the North Side and Dry Creek SCDs.

In 1980, USDA instructed SCS to study the entire management, staffing, and financing of its 22 PMCs to identify opportunities for additional arrangements for federal, state, and local participation. Letters requesting reaction to four proposed alternatives were sent to over 1,000 users and producers of plant materials and other interested individuals and groups within the Aberdeen PMC service area. The majority of responses received were from farmers and ranchers, with 82 percent of them favoring continuation of the present program with adequate funding and staffing. The response was similar nationwide. As a result, no program changes were made.

Today, the objectives of the Aberdeen PMC are much the same as they were 50 years ago. Not because tremendous progress hasn't been made, but because the demand and need for conservation plants are still great. New plants and techniques can still do much to control soil erosion, improve rangeland conditions, and improve water quality. The search goes on for plants that will help control sheet, wind and rill erosion on cropland; improve riparian areas, including stream and gully erosion; improve rangeland infested with cheatgrass or other winter annuals; and improve poor rangeland outside the cheatgrass problem zone. Work continues on plants that will help solve problems on disturbed land, that will provide or improve wildlife habitat, and improve pastureland.

During its 50 years of operation, the Aberdeen PMC has had only six managers: Rusty Stark, Don Douglas, Harold Harris, Ron Foster, Chuck Howard, and Gary Young. Each of them shares a bit of PMC history and many fond memories in the following pages. We thank them for their outstanding contributions to the plant materials program and this history of the Aberdeen PMC.

The Aberdeen Nursery Unit 1939-1950 by Russell H. Stark

*First seedings....collection trips....
a fish breakfast...and PMC hauls the mail*

The Aberdeen PMC started out in 1939 under the title of the Aberdeen Nursery Unit. It was established in cooperation with the Idaho Agricultural Experiment Station for the purpose of determining the adaptation of grasses and legumes for higher elevations under irrigated and non-irrigated conditions.

An employee of the Pullman Nursery Unit made initial seedings on the Aberdeen branch station in the spring of 1939. I arrived in the latter part of June, and most of the seedings were making good emergence.

The material used for the first seedings came from original collections made in the Northwestern United States. Additional seedings were made in subsequent years as material became available. The additional accessions included new collections, as well as material from plant breeders.

Prior to being hired for the Aberdeen job, I was an instructor in the Agronomy Department at the University of Idaho. Dr. A.L. Hafenrichter was the SCS regional plant materials specialist. A job interview with him was an education in itself.

Haffy (as many people called Hafenrichter) asked me if I could get a release without prejudice from the University. I suggested that he indicate the next one eligible on the Civil Service list was a graduate of Utah State. He said that this was the case. As a result, Dean Iddings agreed to let me leave the University. I was fortunate to have worked with Hafenrichter. He made me learn a lot about many things and forced me to learn how to write. This was an education in itself.

Before reporting to Aberdeen, I took some intensive training at the Pullman Unit under Hafenrichter, Dr. Lowell Mullen, John Schwendiman, Harold Miller and Virgil Hawk.

On my arrival at Aberdeen, I was assigned office space with Harlan Stevens, the barley breeder for the U.S. Bureau of Plant Industry. John L. Toevs was the station superintendent. Secretarial work was done on a cooperative basis. Hugh McKay represented the SCS research division. He later became superintendent of the Teton Branch Experiment Station.

In the early 1940s, the station made an agreement with the City of Aberdeen for the Nursery to use 40 acres of the municipal airport to study the revegetation of abandoned farmland. Much of the area west of Aberdeen at that time had been dry farmed, but was then abandoned. This project continued for a number of years and enabled us to prepare a bulletin giving the results of our work.

In the mid-1940s, Harry Oman transferred from Pullman to Aberdeen. Later, we hired Henry Barrett. About the same time, we were able to lease 40 acres just south of town from B.A. Burge for initial seed increase under irrigation of species needed in conservation district programs.

Shortly after we leased the Burge acreage, we also rented part of the barn located on the property to store equipment. Harry and I enclosed part of the area as a "bag-off" space for seed cleaning operations. We had an austere budget, so we got an oil burning circulator heater from the abandoned CCC Camp at Downey. We got it installed and were more than grateful for the heat, because that night the thermometer registered 30 degrees below zero.

About 1945, we hired Esther Richardson as a full time secretary. The roof of the office building had been raised which provided more office space and separate offices for each project.

Also during the early 1940s, we established an observational nursery at the Tetonia branch station. This was done with the help of Hugh McKay and some of the SCS research equipment. A fringe benefit to working at the Tetonia Station was the after-hours trout fishing.

Some of the events that took place during the 1940s were interesting and certainly added spice to the work. Collection trips were made with Lowell Mullen for grass and shrub specimens. I remember one trip through Nevada, in particular. Mullen had all kinds of sharp shooter awards. We startled a coyote out of a culvert. Mullen started shooting, but all he did was speed the flight. I just happened to have a 22 rifle. After letting Mullen fire two or three times, I shot the coyote. Mullen never forgave me for that. One thing I can say about Mullen is that he was pretty good at fishing.

We had excellent cooperation from soil conservation districts and the Land Utilization Unit. We were charged with getting a supply of crested wheatgrass seed just after the end of World War II. Harry and I took a small combine to the LU and harvested some of the better stands. The yield wasn't too high, but it was the only place that seed was available at that time. Jack Taylor, LU manager, helped us on this project. We also made some seeding of Beardless wheatgrass for seed production on the LU. I didn't stay around long enough to see how these turned out.

Sometime during this period we made some contracts with large ranchers to take their crops of crested wheatgrass, clean it, and return a portion of the clean seed to them as payment. Dr. James Kraus, who later became Dean of the College of Agriculture at the University of Idaho, was working at Aberdeen at the time. I arranged for a crop in Swan Valley. Kraus and I hauled it to Aberdeen for cleaning with two old trucks borrowed from the soil conservation district at Downey. There were a number of truckloads of this particular crop.

Later on, when Harry and I were doing some work on the dryland area, we found a small supply of seed in a grower's storage shed. We made the same deal with this grower, but found out SCS was no longer interested in acquiring seed. Since we had the seed cleaned, I paid the grower on the current market. Luckily, the market went rather high that year. Harry and I split the profits.

One time, McKay and I were invited to a state soil conservation district meeting in Idaho Falls. R. Neil Irving was state conservationist. During the day, the conversation got around to trout fishing. Mac and I offered to go to Bitch Creek near Tetonia and catch enough fish for breakfast. We had a lot of disbelievers, so we had to produce. We told everyone at the meeting to be sure and come to the dining room for a fish breakfast.

We didn't quit fishing the creek until dark. As Mac and I were coming back down the creek, I was trailing a big ugly fly in the water when the largest fish we caught that evening snagged himself on my line.

The hotel kept our catch in the refrigerator overnight, and the cook started cooking them all at once the next morning. The small ones were served first. Everyone agreed they had plenty to eat, but when the large fish came out, Neil Irving couldn't stand to have it go back to the kitchen. We all stood around and cheered him on until it was gone.

Some of the other fun things we got to do was collect juniper berries for seed from the lava fields west of Aberdeen. We also collected Russian olive seed at Arco, and black locust seed at American Falls. The main problem with collecting the locust was that the wind blew so much at American Falls that it was hard to get it collected after it was knocked off the trees. The lava beds wore out a lot of shoe leather.

At one time, there was a plan to produce breeder seed of a new variety of Ladino clover at Aberdeen. There were about 34 clonal selections used. The clones were grown at Pullman and trucked to Aberdeen. We leased a couple of acres of isolated land out near Sportsman's Park and planted 100,000 plants, more or less, by hand.

We took the first crop, which amounted to less than 100 pounds. Then we were to turn the land back to the grower in a condition similar to what it was when we started. As a result, Harry started to plow the field. It was late in the year, and he got only a very small portion plowed the first day. I don't remember all the details, but the sheriff served some "cease and desist" papers on me at my home on Thanksgiving Day. The owner of the land wasn't a farmer, but thought that with all the work we had put in on the field, the next crop would be very valuable. As I clearly recall, the field was allowed to grow up to weeds, and no other seed crop was ever harvested. According to Don Douglas, there was never anything done with the supply of breeders seed.

I don't recall any failures on district seed plots, but I do remember that I encouraged one farmer in the Twin Falls area to grow some crested wheatgrass just at the end of the war. He put in about 40 acres and got a ton of seed per acre from his first crop. The price that year was 50 cents per pound.

A grower in Aberdeen by the name of Hansen put in some Manchar brome in the late summer and harvested over 1,800 pounds of seed per acre that sold for 75 cents per pound. There were others, but they didn't have the success of these two.

During the snowy, windy winter of 1948, Aberdeen was isolated for three weeks. The train didn't come in for two weeks, and the highway to American Falls was impassable. Alvin Funk, the postmaster, was accumulating so much mail there was no place to store it in the post office. Since the SCS truck we had at the time was the only government-owned truck in town, Alvin asked me if I would try hauling a load of mail to American Falls. He had about 7,000 pounds at the time.

We got heavy-duty tire chains from the school district and removed the outside dual wheels from the truck. Alvin arranged for two tractors with snowplows to go ahead of us. Alvin rode with me while Harry and Henry followed with a loaded pickup in case we needed extra help with the truck.

We got half-way to American Falls, and the wind was blowing so hard it was impossible for the snowplows to follow the road. We had to turn back. Two days later, the train came through, so we unloaded the truck at the train depot.

Shortly after December 7, 1941, one of my friends and I decided to volunteer for the Marines. We didn't hear anything back, so I called to see what was holding up a response. I was told they had lost our applications. Shortly after that, I had a visit from Max Hoover of the Washington, D.C. office, notifying me that I was frozen on my particular job and wouldn't be hearing from the Marines.

The Fifties 1950-1957 by Donald S. Douglas

*Nurseries abandoned....
South Bingham SCD buys a farm....
an award for superior service*

By the mid-1950s, the study at the Aberdeen airport had matured and was closed out. It had been started by Russell Stark and Dr. Hafenrichter and consisted of identical plantings year after year. State conservationists in Idaho, Nevada, and Utah encouraged district conservationists to plan trips to Aberdeen with district supervisors and ranchers to observe the long-term results.

About this time, the Eisenhower-Benson administration announced plans to "abandon" the nurseries. The outpouring of support by soil conservation district boards and ranchers was so effective that the Aberdeen Plant Materials Center was established. But in the interval, leases had been cancelled and valuable seed production fields and other plantings plowed out.

To give continuity to the work, a piece of land in public ownership was needed. South Bingham SCD took the initiative, located land that was available, and financed the purchase in an innovative manner.

SCD boards in Idaho, Nevada, and Utah lent money to South Bingham, together with a bank loan, to purchase the present PMC farm. The district repaid the loans with SCS rental funds. The part the districts played in purchase of the land and re-establishment of the plant materials program became a symbol of pride in "our" Plant Materials Center.

We had some real stars on the staff during the 1950s. Harry Oman was farm superintendent and seedhouse foreman. He had been a hardware clerk but became expert in grass seed harvest and cleaning and consultant to district cooperators and the seed industry.

Henry Barrett was irrigator and tractor man. Ed and Everett Worth completed the crew. Everett later became farm superintendent when Harry Oman died.

We had a couple of short-time agronomists, and then Harold Harris came about 1952. He brought with him a broad background of forestry, wildlife, engineering, agronomy, and experience as a district conservationist. His enthusiasm and drive brought the new PMC into being and prominence quickly and was largely responsible for the PMC receiving the USDA Superior Service Award in 1958.

Ron Foster, with his solid technology and high motivation, was Harold's right hand in the second half of the decade.

Neil Irving, Tom Helseth and Jay Thaanum, together with other staff in the Idaho State Office and together with area conservationists Luther Jones, Peter Taylor, John Hull, Tom McGourin, Doug Hole, L.V. Benjamin, and Norm Berg gave their support and assistance. State and field staffs of Utah and Nevada were similarly supportive.

The USDA Award was probably the most important and interesting event of the decade. The state office had asked me to prepare the nomination document. I think I did it quite well, citing the accomplishments of the PMC staff in bringing the Center back to a functioning unit after being "abandoned" in 1954. The state office amended the draft to include my name.

I've always appreciated being included, although I wasn't really a member of the Center staff. Harold and I worked well together, especially in the evenings after the crew had gone home and on Saturdays and Sundays to get the new Center farm ready and planted.

To me, the unit citation is even more meaningful than an individual award, because it implies and requires a high level of cooperation and team work among staff members.

Personally, my 10 years as nursery manager and plant materials specialist were among the most rewarding and (I feel) productive years in my career. This experience, with the leadership and training from Dr. A.L. Hafenrichter, was extremely helpful in my latter assignments.

The Award for Superior Service

On June 20, 1958, members of the Aberdeen Plant Materials Center Staff were presented with a Superior Service Award from USDA and Secretary of Agriculture Ezra Taft Benson. Harold E. Tower, SCS western field representative, Washington, D.C., made the presentation during ceremonies at the Center.

The citation read: "For developing a run-down farm into an efficient unit producing new and improved plant materials, providing leadership in seed increase, and intensive use of these materials in Idaho, Utah and Nevada.

Members of the PMC Staff were listed as follows in the special program for the event: Don Douglas, plant materials technician; Harold L. Harris, PMC manager and plant materials specialist; Ronald B. Foster, agronomist; Everett E. Worth, farm superintendent; Gertrude G. Crippin, secretary; and farm laborers Edward E. Worth, Mrs. Fannie Farmer, Miss Doris Horsch, and Mrs. Betty Wilcox.

Acceptance speech by Don Douglas

"I accept this award on behalf of the unit with great pride and much humility. We share it with many other people. We stand by circumstance of time and place upon a platform built by many hands.

"We wish to acknowledge the help and support which brings this award. First and foremost, Dr. A.L. Hafenrichter has given leadership, inspiration and direction to the Center from the time it was an idea through 20 years of operation. Haffe, we share with you.

"I'm sure that Harry Oman is here in spirit, and I wish with all my heart that he might be here physically. You who knew Harry recognize that he exemplified the ideals, the integrity, and the industry for which this award is made. I hope that something of consequence may bear the name Harry Oman Memorial.

"You will remember others who laid the foundation -- Rusty Stark, Roy and Mrs. Jensen, Esther Richardson, Nellie Heath, Hank Barrett, and others.

"Our close associate through the years has been the University Experiment Station, and I want to single out particularly John L. Toevs and Dr. Karl Klages, who have had a profound effect upon our work.

"You fellows in SCS work units share this with us for only by your use of ideas, facilities, and materials does our product result in conservation on the land.

"Working relationships with SCDs have been wonderful and mutually beneficial. The support and encouragement of such men as Harvey Hale, Dick Buehler, Don Fredericksen, Wilford Jensen, Ernie Egan, and a host of others as individuals, as districts and as state associations, has been one of the real rewards of a career in government service. With the South Bingham SCD, we are particularly happy to share this award.

"Mont Johnson and Harry Noh, grassmen of the northwest end of Idaho, we are proud to share with you just as you shared with us in your achievements.

"We gratefully acknowledge that many others have done much to make this possible: To Bob Hammes, John Snow, and the local chamber of commerce, to the crop improvement associations of Idaho and Utah, the seed trade, and the grass seed growers, to our wives and families for their patience and understanding, and finally to a grand state office -- they make all things possible.

"I can only marvel why such a wonderful thing should have happened to such ordinary people."

Grass Seed Industry Established in Twin Falls County

*..an example of the tremendous impact of the plant materials program
from the files of the Aberdeen PMC*

June 27, 1957 -- In the 4.5 years that the Twin Falls Soil Conservation District (Idaho) has been in operation, grass seed production has increased from none to more than \$100,000 worth in 1956. This is the result of a well-planned and continuing program of training meetings in grass seed production conducted by the district supervisors and the staff of the Aberdeen Plant Materials Center.

A community meeting in 1953 resulted in the district supervisors and several interested growers visiting the Aberdeen PMC. This was followed by a group training meeting attended by more than 75 growers and seedsmen. Each year a field meeting is held at which growers go from field to field comparing cultural and production techniques and discussing their mutual problems.

The first district seed increase fields were planted in 1953. Now there are 51 seed fields producing improved plant materials in the District, about 800 acres, of which 31 are district seed increase fields. Concurrently, a planned program of field-size planting trials demonstrates adaptation, culture, and management of improved plants on 1,600 acres.

Because there are adequate seed supplies of adapted plants, there have been more than 11,000 acres of privately owned lands in the District seeded to grass for pasture and range and more than 40,000 acres of public lands.

Grasses developed and introduced by SCS plant materials centers which are being grown in the Twin Falls SCD under the inspection and certification rules of the Idaho Crop Improvement Association are Siberian wheatgrass, Topar pubescent wheatgrass, tall wheatgrass, Whitmar wheatgrass, Greenar wheatgrass, Sodar wheatgrass, Manchar smooth bromegrass, and Latah orchardgrass.

The supervisors of the Twin Falls SCD credit the PMC with a large share of the responsibility for a successful grassland program and the establishment of a new grass seed industry in the District.

The Program Grows 1952-1973 by Harold L. Harris

Recap of historycooperation expands

Rusty Stark started the PMC at Aberdeen in 1939. The B.A. Burge farm on the south edge of Aberdeen and a separate equipment storage building about one block north were rented for seed production evaluations, seed increase, seed cleaning and storage. The 35-acre farm was infested with noxious weeds and needed leveling for proper irrigation.

The old barn and its loft were used for seed cleaning and seed storage. Cleaning equipment installed in the loft to permitted gravity flow through the machine. This required outletting the seed at the ground floor level and manually moving it back to the loft level for each subsequent cleaning operation. A mechanical lift was installed but soon became contaminated with a mixture of seeds that couldn't be cleaned from the lift.

Conscientious efforts by Stark resulted in quality seed and marked improvement in field conditions.

Plant and cultural evaluation studies, both irrigated and dryland, were carried out in cooperation with the University of Idaho on experiment station lands at Aberdeen and Tetonia.

Breeder and foundation quality seeds were carried out in cooperation with the University of Idaho and the Idaho Crop Improvement Association.

SCD certified seed increases were carried out in cooperation with state land grant colleges and Crop Improvement Associations in Idaho, Nevada and Utah. Quality seed for field planting trials of improved plant materials, cultural and management techniques in comparison with those in common use were carried out on SCD cooperator farms throughout the area served.

Seed production of plant materials featured in PMC trials and SCD field plantings and seed increases were shared by all PMCs within the Western Region under the direction and guidance of Dr. A.L. Hafenrichter, regional plant materials specialist, Portland. Dr. Hafenrichter deserves major credit for the efficiency, productivity, and technical quality of the plant materials program in the West. It's functioning moved into all other regions.

The production of foundation seeds of improved plant materials featured in state seed increase on non-SCD cooperator farms are shared by the respective state experiment stations and PMC serving the state. (Some of the seeds shared within a state may include foundation seeds allocated to the PMC by another PMC.)

Promising new plant materials are provided through field collection from native plants under guidance of, or by the PMC Staff and through the plant introduction stations at Beltsville, Maryland, and Pullman, Washington. Plant introduction stations arrange for the collection of foreign plant materials to meet specific needs of soils, climate, moisture and use within SCDs as requested by PMCs. They also provide lists and relative performance summaries of plant materials they have available.

This is more standard procedure than history. I include it because the program wasn't in operation when Rusty Stark started. He, Dr. Hafenrichter, and others developed the steps with time.

I initiated the student trainee program at the PMC during my tenure. It was a very excellent and worthwhile program. I don't remember all the students' names but can't recall a single trainee who didn't exhibit top potential for a quality SCS employee.

Initial efforts of the PMC included the selection and development of improved plant materials and techniques for their establishment, management, and seed increase on non-irrigated croplands and depleted rangelands within the area served by the PMC.

Subsequent efforts involved irrigated cropland and erosion control on all lands through the use of adapted species of grasses, legumes, shrubs and trees. Woody materials were provided by the Clark-McNary Nursery, University of Idaho, and the SCS PMC at Mandan, North Dakota. Species not available from these sources were purchased from commercial nurseries. New selections were provided by plant introduction stations.

The Aberdeen PMC provided seed and establishment-management techniques to the Land Utilization Unit to convert the lands to pasture use.

With the need for improved plants and techniques for their culture, establishment and management, the use of field evaluation plantings on specific problem sites were used extensively throughout the PMC service area. Problem areas included stabilization of soils in berms, ditches, canals, dams, contour diversion terraces, ski slopes, sanitary land fills, highway and roadway cuts, fill slopes, minespoil areas, smelter settlement fields, and sand dune areas.

Field evaluation plantings have also been used for sewage filter fields, wildlife food and cover plants, reseeding of range and forest fire areas, orchard cover crops, green manure crops, wet meadow renovation, fertility studies, and seed increases.

Power SCD sponsored a highway seeding on the old stretch of Highway 30 between Igor Overpass and Simplot's Fertilizer Plant near Pocatello in 1952-53. Harry Oman, farm superintendent, set the drill and did most of the actual planting.

Field evaluation plantings sites involved land under many ownerships: Universities, USDA, U.S. Department of Interior, Idaho Fish and Game Department, county, city schools, private industry (mining, food processing, etc.), farms and ranches.

Field plantings featured improved plant materials and/or cultural and management practices proven superior to those in common use on cooperators' farms and ranches within the PMC service area.

During my tenure at the PMC, one of our major activities was training sessions for SCS and other agency personnel, as well as SCD supervisors, farmers and ranchers.

Following closure of the PMC in 1953, it was planned to sell or junk all the equipment. With the help of local farmers, I was able to store the major portion in barns, graineries, and potato cellars.

Following refunding in 1954, B.A. Burge set rental fees for the former lands and buildings beyond the reach of available funds. Supervisors of the newly organized South Bingham SCD signed personal notes to purchase the present farm. Other SCDs within the service area accepted the offer to help in the financing. The amount that any SCD could loan was limited to permit maximum participation. SCS rental fees (much less than that requested by Burge) permitted a rather rapid

repayment of the loans. South Bingham SCD supervisors were the last to clear their notes. The support of all SCDs involved was outstanding.

The Aberdeen PMC was the first purchased in this manner; Wyoming's PMC is owned under similar arrangement.

Robert Hensen, local contractor, did land leveling on the new farm at a very moderate cost. Idaho Pipe and Concrete Company of Pocatello provided headgates, division boxes, and culverts. Simplots' provided fertilizer. Northrup King Seed Company, Boise, arranged for Clarence Holler, their long-time warehouseman, to convert the old clipper cleaner into an air-feed along with air cleaning. Clarence charged a ridiculously low fee (\$2.50 per hour labor; no travel time, and \$2.50 per diem) and wouldn't accept more. The result was a very effective and efficient seed cleaning plant.

South Bingham SCD provided a new Quonset building for seed cleaning, seed and equipment storage. I was able to secure two steel graineries that had to be removed from the flooded area of the Palisade Dam at no cost except the moving. Pocatello Area Office loaned two of their field staff, an SCD supervisor loaned a truck, and we moved the graineries first to the Aberdeen Experiment Station yards, and later to the PMC.

With increases in funding, the SCD provided a cinder block seed storage, and the graineries were used for storage. Then a new seedhouse, complete with updated cleaning equipment and accessories, was installed to go along with the new equipment shed-office building.

The Search for Plants Continues 1957-1966 by Ronald B. Foster

*The plant materials program adapts
to increasing environmental awareness*

My first knowledge of the Aberdeen Plant Materials Center came about as a result of conversations with Loy Jensen, SCS work unit conservationist in Teton County, in the fall of 1956. I was Teton County Agent at the time and worked with Loy on cooperative projects.

I had attended Utah State Agricultural College (now Utah State University) with special emphasis on plant breeding. It was an intriguing thought to get back into my specialized field of training. I told Loy I'd be interested in the agronomist position at the Center.

A short time later Don Douglas came to Driggs. I remember sitting in his car and visiting about the dimensions and responsibilities associated with the job.

I was impressed with Don and his description of the job. I had been to Aberdeen and knew about the small town environment. So when he suggested I get my name on the Civil Service employment roster, my wife, Naomi, and I were pleased. With my Masters Degree and Veteran's preference points, the chances seemed to be pretty good that if they wanted to hire me, it could be worked out.

One of the things I considered to be a real fringe benefit was the opportunity to work under the guidance of Dr. A.L. Hafenrichter, one of the renowned grassland scientists in the world. I had read several of his writings and was aware of the prestige he had in the world-wide academic community.

Employment day was April 8, 1957. When I arrived for work that first morning, Don Douglas, plant materials specialist; Harold Harris, PMC manager; Everett Worth, farm superintendent; and Gertrude Crippin, secretary, all extended a friendly hand, and I was on board!

Dr. Ed Owens, University of Idaho Aberdeen Branch Experiment Station Superintendent, and his staff of some 15 professional people helped provide a professional atmosphere for the work we were doing.

Harold Harris was an amiable fellow and a native Idahoan who had been raised in Ashton. I was raised in Rigby, so we had the Idaho bond. I soon found out that he could catch fish where there weren't any -- and shoot birds with as keen an eye as I had ever witnessed. He became a good friend, and we had a lot of good times working and playing together.

Don Douglas was a traveling man. He was in Nevada, Utah, and Idaho other than Aberdeen most of the time.

I soon learned about field plantings, a program to test new plants under actual grazing conditions on the farm or ranch. And district seed increase plantings aimed at getting new and better plants increased and in use.

Don arranged for and supervised both of these programs in cooperation with work unit conservationists and soil conservation districts. He met with farm groups and gave talks explaining the advantages of good management routines for protecting the soil and maximizing production. He took me with him a couple of times to acquaint me with the program.

Everett took care of the irrigating, tractor work, seed cleaning, packaging and the daily chores at the farm. We didn't have the finest new equipment, but we made do with what we had and kept the fields clean and free of weeds. We harvested the seed fields with a binder and then cut the strings and pitched the bundles into the combine.

Other field help included Everett's father, Ed. He was along in years, had lost his high gear, but was good in both second and low. No job was too trivial or undesirable, so he undertook every assignment with a pleasant attitude, and you knew the job would be done.

Harold had concluded from earlier experiences that high school age kids weren't the best field help. He had on board some capable "hoers" in the likes of Tinker Farmer, Betty Wilcox, and Doris Horsch. They spent their days in the fields hand weeding plots, and roguing seed fields.

We had the responsibility of maintaining breeder and foundation seed supplies for grass varieties that had been released. Those plots and fields took a lot of hand work and special attention.

My responsibilities as agronomist were to carry out a testing program of exotic accessions and native collections that had potential for use in soil and water protection, as well as economic returns for the users.

We did much of the plot work on experiment station land because seed increase fields occupied the PMC farm. Dr. Owens and his crew were cooperative in this effort and provided us with space for testing perennial type plants.

We had a set of dryland plots at the Aberdeen Airport southwest of Aberdeen that were a part of a long-time ecological and yield testing project.

Major dryland species were tested extensively at the University of Idaho Tetonia Branch Experiment Station northeast of Rexburg. This was a much higher rainfall area than the Aberdeen Airport site, so many more accessions could be tested.

Hugh McKay was the Tetonia station superintendent and Vilas Bell was the farm manager. Vilas was raised in Teton Basin and was climatized to live on the station year around. He kept a milk cow and chickens, so they were fortified for the snowy winters. Vilas took care of field preparation, cultivating, and tractor work.

We harvested our plots and took them to Aberdeen for drying, weighing, and processing.

The major difficulty with Tetonia was the drive up in the morning looking into the sun and the drive back in the evening looking into the sun. Note-taking and lunch at the station were always enjoyable. Occasionally, Harold would go with me, and after work we'd hike down into the Teton River canyon to fish. A few rattlesnakes and some good fishing are memories of those times.

One time, Harold borrowed a lure from me like one I was using and caught twice as many fish as I did. Over the years, I always felt successful if I caught half as many fish as he did on a given fishing excursion. He took me to "old foamy" on the Henry's Fork above Ashton a few times. He had grown up there and knew every angle to fish in the area. It was no contest!

We had two sources of seed for our plot performance testing. Our major source was through the plant introduction program carried on by the Agricultural Research Service. We had access to their list of materials and received the packets of seed from their stations at Beltsville, Maryland. There had been a plant collection team in Russia in the early 1950s, and we had access to some of that material.

One of the packets came to us as *Bromus* Spp. The first planting of this packet had good seedling emergence and a rapid regrowth characteristic. It was so impressive that we collected seed and began a comprehensive testing program. It was winter hardy, long lived, so we took it to the field in the SCD field planting program. It proved to be well liked by cattle in a grazing program and fit fairly well with alfalfa as a mixture for dry hay. Its rapid regrowth always stood out in every trial. We collected vegetative and floral samples and sent them to Beltsville for species identification. After quite a long wait, the identification came back as Meadow Brome *Bromus Biebersteinii*.

We established a breeder block and started seed increase to get a commercial volume of seed. We collected and consolidated data, selected and submitted the name "Regar" (denoting rapid regrowth), and published a University of Idaho bulletin. The performance information was reviewed, and the variety released jointly by SCS, ARS, and the University of Idaho. Seed supplies flowed into commercial channels, and the variety was well received over a large Western geographic area and into Canada.

Other varieties that had been released but were still being tested in plots, field plantings, and the seed increase program included P27 Siberian wheatgrass; Topar Pubescent wheatgrass; Sodar streambank wheatgrass; Greenar intermediate wheatgrass; Latar Orchardgrass; Great Basin wildrye, later released as Magnar; dwarf intermediate wheat, later released as Tegmar; Dwarf Orchardgrass, later released as Paiute. Native Bluebunch wheatgrass collections were tested extensively.

Two non-bloating legumes received a lot of testing attention during these years. Sainfoin did well in the dryland plots at Tetonia and seemed to be a natural for enhancing forage production planted with grass under higher rainfall dryland conditions. It went into field plantings but didn't prove to be long lived enough to stay for the duration of grazing that the ranchers and farmers desired.

We tested Birdsfoot trefoil, a wetland non-bloating legume, in irrigated pastures extensively but it didn't persist under heavy grazing so didn't make it into commercial production.

The other source of testing material was our own collection in the native grassland areas of the West. During his travels, Don Douglas always kept his eyes open for outstanding material and occasionally brought samples back for testing.

Each year, we went on a plant collecting tour for a few days and tried to visit areas where we knew there was some natural hybridization going on within the *Agropyron* species. We also looked for inter-species hybrids, but the few we found were always sterile. One of the best hybrid areas was above Hill City behind the Camas meadows area.

In 1961, Don received a promotion to regional plant materials specialist. Harold was promoted to fill his position. I also got a promotion and responsibility as PMC manager. Leaford Windle came on staff as the agronomist and proved to be a meticulous research scientist.

As PMC Manager, my responsibilities changed from the plot testing program to administration, cooperation, and coordination with the University and other agencies, public relations, and working in the field with work unit conservationists and range specialists. We worked on individual farms and presented information to groups of ranchers and farmers, always emphasizing soil protection and water conservation, as well as forage production.

I wrote news releases for magazines and newspapers. One series of releases went out under the heading "Green Grows the Grass." Each week I highlighted a different species or variety. There were 14 segments in this series.

As manager, there were more administrative meetings to attend. The most productive were annual meetings in Portland with Dr. Hafenrichter. All plant materials personnel from the West participated. Dr. and Mrs. Hafenrichter were great hosts, and we always had a cookout at their home. The other ritual was to go to Louis' Oyster Bar in downtown Portland. Nearly everyone learned to eat and like oysters on the half shell!

These meetings were always professionally productive, and we went away with renewed enthusiasm for the work after being in "Haffy's" presence for a few days.

Native shrubs and forbs came into the program as more emphasis was placed on wildlife habitat and reseeding the mine spoils and other physically disturbed areas. Collecting and testing programs were expanded, as well as working with seed production or other propagation methods.

These environmental issues renewed funding enthusiasm and cooperative efforts with other agencies. We became more involved with the Bureau of Land Management, Forest Service, and Idaho Fish and Game Department. An active testing program began for testing waterfowl food plants. Nurseries and plantings were established on Fish and Game wildlife refuges across the state.

The "Grass Farm" was owned by the South Bingham Soil Conservation District and leased to SCS. It was the base of operations for field work and consisted of about 35 acres in odd-shaped small fields, most of which had been land leveled for gravity irrigation. Cuts and fills in land leveling made for variable soil conditions that were okay for seed increases but didn't lend well to plot testing.

We did plot testing mostly on experimental station lands and seed increases at the "grass farm." Two and three-acre fields were common size increase plantings.

Weeding and roguing out other grasses from the seed increase fields took a lot of hand labor. Everett Worth and the agronomist supervised the hand weeding crews.

The buildings at the Center consisted of a Quonset type building partitioned into a shop and seed cleaning area. We used a small chemical room and open-sided building for machine storage and to hang sacks for air drying of forage samples.

Seed cleaning equipment was both up and down stairs in the seed cleaning end of the building. Everett spent much of the winter cleaning the different lots of seed. All of the equipment had to be meticulously cleaned between lots so there wouldn't be any mixing of seed.

We bagged and tagged the cleaned seed and submitted samples to the State Seed Testing Lab in Boise. We included test results on the tags attached to the bags, as well as an Idaho Crop Improvement Association tag designating the seed as foundation or certified quality.

We harvested seed from breeder's blocks of plants and used it to establish foundation seed fields. The PMC had the responsibility of maintaining foundation quality seed for grass varieties in the state. This agreement was with the University of Idaho and the Idaho Crop Improvement Association.

South Bingham SCD agreed to finance a much needed seed storage building on the farm. We designed a cinder block single story building which was built north of the Quonset. It certainly enhanced our ability to catalog and store seed that could flow into the field planting and seed increase program in the soil conservation districts.

A large volume seed storage study had been put into place about 1946 at several PMCs in the West. It contained samples of small grains, many grass species, and a number of legumes. Samples were pulled periodically for germination tests in state seed labs, and data assembled on seed longevity and seedling vigor.

The natural storage conditions at Aberdeen (medium temperatures, low humidities) were conducive to seeds maintaining their germination for longer periods of time than at the other locations. This data was summarized and published after 15 years at Aberdeen and was influential in supporting the location of the National Grain Repository at the Aberdeen Experiment Station in 1987.

I resigned from SCS on April 4, 1966. My decision was based on several factors. First, I had observed the amount of travel and time away from home that was involved with the next professional position, plant materials specialist. I had several children and wanted to be there to help my wife raise them and knew that wouldn't be possible if I accepted a promotion to other parts of the U.S. that had been offered. The hands-on research and testing at the Centers were much more to my professional training and personal liking, and I was going to be removed from that. Dr. Hafenrichter was retiring, and the professionalism he had established for the program world-wide would be very difficult to maintain.

Finally, I had been raised on a farm and had a lot of farm blood in my veins. I had purchased and developed, with my father's help, an acreage near Aberdeen. To make that into an economically productive unit that would provide responsibility and decision-making opportunities for my children was an intriguing challenge. I decided to give the farm a try. If it didn't work, I could take up a professional career again.

The farm had its good years and bad in the 22 years that I stayed with it. I also stayed active in farm organizations over the years. In January 1988, I was named executive director of the Idaho Sugarbeet Growers and given the charge to open an office and set up a state-wide grower program that would network into the American Sugarbeet Grower Association.

I want to pay my respects to the people I worked with in the Soil Conservation Service. They were dedicated public servants working in an area that didn't have a lot of glamor in those years. Environment and conservation are much more in vogue today.

I have great respect for Harold Harris and Don Douglas. They took me under their wings and made me feel important to their operation and to the goals of the plant materials work.

I will always consider Dr. Hafenrichter as one of the two or three professional people who impacted my life, both professionally and intellectually.

The University of Idaho staff at the Aberdeen Experiment Station deserve honorable mention. They kept me in touch with the professional research world during the time I was farming, and it was an honor to serve on the Agriculture Consulting Council of the University of Idaho during part of those farming years.

Two Decades of Progress 1966-1986 by Charles G. Howard

*The farm gets a face lift...safety becomes a concern
...and the program matures*

When I became PMC manager, erosion was heavy on the north end of the farm, waste ditches were badly eroded, the sump pond was 95 percent full of silt, and the pump inlet was completely covered.

The irrigation system was inefficient: too many head ditches for acres irrigated, requiring too much labor. Flat and low spots in several fields caused inefficient use of water.

We completely upgraded the inadequate and outdated farm equipment.

Using a rear-mounted tractor blade, we cleaned out the pond, constructed a diversion ditch, reconstructed all eroding waste ditches, leveled six fields, and eliminated some head ditches.

We hand built several structures with lava rock, pre-mix concrete, and corrugated metal pipe. We built temporary sandbag check-drop structures with visqueen covers to control water in one of the steeper waste ditches. We seeded all steeper waste ditches to permanent grass cover after reconstruction and grading.

As a result of this work, all silt deposition into the sump pond stopped! We made more efficient use of water, and it took less labor to irrigate. Gates pipe eventually replaced all head ditches, further helping efficient irrigation.

A large metal building constructed in 1978 provided the first heated shop and office space for the PMC farm staff. We used part of the building to store equipment in the winter, and the concrete floor provided an excellent place to spread and dry seed of all types in the summer.

About five years later, South Bingham SCD built an addition on the west side of the old original Quonset building. This provided much needed additional heated space plus natural light for processing small lots of seed.

In the early 1970s, it became evident the 35 acres of irrigated cropland on the "home farm" weren't adequate to meet the needs of the expanding plant materials program. We made cooperative searches for additional land with the South Bingham SCD, Bureau of Reclamation, and Idaho Fish and Game Department. We checked several different tracts but none were suitable until the Idaho Fish and Game offered a tract of land about three miles northeast of the home farm.

We signed a cooperative agreement with the Fish and Game Department in about 1976. It gave us free use of the land for 25 years for plant testing and development, with the option of continuing beyond that time.

We erected a new fence and graveled road around the outer perimeter of the land, installed about 1,400 feet of concrete pipeline, had an irrigation well drilled and cased, brought in electric power, installed a sprinkler system with pump and underground mainline, land smoothed about 40 acres to facilitate sprinkler irrigation, and carried out an intensive weed control program. This new tract provided us with about 100 acres of irrigated cropland, enough to meet increasing needs.

Working with the state advisory committee and the SCS regional landscape architect, we completed a landscaping plan for the PMC. It included a three-row windbreak around the farmstead area.

Before I retired, we made tentative plans with the South Bingham SCD to erect a metal building to house a new seed cleaning plant as soon as the last two construction jobs were paid for. We had decided it would be cheaper to erect a new building instead of enlarging and repairing the old original Quonset which leaked badly and had become too small for modern needs. This building is now in place with a new seed cleaning plant.

I instituted a safety program at the PMC, appointed a safety officer, and conducted periodic safety meetings. We built vent pipes and connected them to the air-lift seed cleaning system to remove as much dust from the air as possible when cleaning seed. It still wasn't adequate, so when funds became available, we purchased and installed three electronic air cleaners which were pretty effective. Dust hovering over and around the seed cleaning machinery in the small enclosed rooms while cleaning seed in winter months had been a serious health hazard to employees.

Hot water heaters were installed in both buildings. There were none when I came in 1966. All tap water had been very cold!

We also purchased equipment such as masks, disposable coveralls, ear protectors, and rubber gloves to facilitate safe, healthy working conditions for employees when working with pesticides, fertilizers, or around excess noise. We moved all pesticides to the University of Idaho chemical storage building and out of PMC farm headquarters office buildings. The PMC farm service yard and home farm access roads were graveled to reduce heavy dust and enhance all-weather use.

In about 1974, we made arrangements to rent greenhouse space from the University on an annual basis. This was the first such space ever for PMC use and made it possible to grow and test plants which we couldn't have been done otherwise. We started much of the 1975 woody plant initial evaluation planting started in this space. It is still being used.

Cooperative work continued with several agencies, including:

Idaho Fish and Game Department

We conducted test projects on wildlife management areas at Ft. Boise near Parma and Market Lake near Roberts. Our objective was to determine and/or find plants best suited for food and cover for waterfowl, as well as for pheasants. This cooperative effort led to the acquisition and use of Fish and Game land as previously mentioned.

Idaho Department of Transportation

We conducted cooperative test projects on highway rights-of-way near Boise, Mountain Home, Glens Ferry, Twin Falls, Malta, Juniper, and Springfield. The objective was to determine which species and/or cultural methods were best suited for revegetating new highway rights-of-way in Idaho. The Department reimbursed SCS for much of this work.

University of Idaho

We completed cooperative off-Center test work with the University of Idaho at Teton and the City of Aberdeen at the Aberdeen Airport. Both sites were non-irrigated but had different climates and precipitation.

University of Nevada

We completed cooperative test work with the University of Nevada at Knoll Creek. Ranchers who owned the land terminated the lease with the University. This had provided an excellent site for testing plants with no irrigation, low precipitation, and at higher altitudes.

New cooperative agreements were either completed or nearly completed before my retirement as follows:

U.S. Fish and Wildlife Service

We started and completed several test projects on the Bear Lake Wildlife Refuge. The results were quite helpful in providing guidance to Fish and Wildlife Service personnel in revegetating about 10,000 acres of land within the Refuge which had been severely overgrazed for many years prior to that time. The primary objective was to provide improved nesting cover and food for waterfowl, as well as land cover.

Bureau of Land Management

We located a suitable site at Coffee Point on BLM land about 20 miles northwest of Aberdeen for testing plants on a non-irrigated range site. We established four projects in 1984 and 1985 (with room for more). The site would provide much useful and needed information relative to revegetation of similar range sites on several million acres in the three states served by the Center. BLM fenced and cleared the site. PMC staff prepared seedbeds, planted, and evaluated the projects.

Forest Service and BLM

We cooperatively located two test sites and established projects in the Curlew National Grasslands near Malad, Idaho. Results could be used in revegetating similar areas as well as within the Curlew area. Multiple use plants were needed.

University of Nevada, BLM, and SCS in Nevada

We completed preliminary work with these agencies relative to a cooperative agreement involving plant testing on a typical site in northeast Nevada. Such a site was located on private land on Front Creek east of U.S. Highway 93 about 35 miles south of the Idaho border. Multiple use plants were needed for this type of range site which is similar to the old Knoll Creek site.

Bureau of Reclamation

We completed negotiations relative to the development of a cooperative agreement permitting the testing of plants with potential for shoreline stabilization around the lower half of American Falls Reservoir which covers about 30,000 acres when full. Bank erosion caused by wind-generated wave action was a serious problem on the reservoir. PMC work was to be reimbursed by the Bureau. Plant testing started after my retirement.

We cooperatively released several plants, including Nezpar Indian Ricegrass, Magnar Basin Wildrye, Ephraim Crested Wheatgrass, Appar Lewis Flax, Delar Small Burnet, and Paiute Orchardgrass.

We also worked closely with Agricultural Research Service personnel at Utah State University and Forest Service and Utah Wildlife Resources personnel at Ephraim, Utah, in new plant development and testing. Three of the plants listed above were released in cooperation with these agencies.

Several other plants that I worked with demonstrated potential for possible release in the future. One of the most promising was an accession of bluebunch wheatgrass. It had been tested extensively for several years with the number P-739. I understand it will be released sometime soon with the name "Goldar."

We developed a training program for SCS employees, termed by some as the best of its kind in the country. The program spanned two-and-a-half days and accommodated 25 to 30 trainees at a time from Utah, Nevada, and Idaho. Employees from other agencies also received training in the last few sessions.

We tested plants for all types of needs during my 20-year tenure as PMC manager. Overall, I think we made excellent progress.

Not all plants were used to the extent they were released. For example, we came up with two excellent proso millets, two foxtail millets, and one three-square bulrush. All were well adapted for use as waterfowl food and cover in the area served by the Center. The millets were also ideally adapted for upland game bird plant food. But there wasn't enough interest among private users or public agencies to justify release.

The Aberdeen PMC has also been involved in testing plants for the following formal releases.

- Alkar Tall wheatgrass (released in 1951)
- Bromar Mountain brome (released in 1946)
- Canbar Canbyi bluegrass (released in 1979)
- Covar Sheep fescue (released in 1977)
- Durar Hard fescue (released in 1949)
- Greenar Intermediate wheatgrass (released in 1945)
- Latar Orchardgrass (released in 1957)
- Manchar Smooth brome (released in 1943)
- P4874 Bulbous bluegrass (released in 1956)
- Pomar Orchardgrass (released in 1966)
- Primar Slender wheatgrass (released in 1946)
- Secar Bluebunch wheatgrass (released in 1980)
- Sherman Big bluegrass (released in 1945)
- Shoshone Beardless wildrye (released in 1980)
- Volga Mammoth wildrye (released in 1949)
- Whitmar Beardless bluebunch wheatgrass (released in 1946)

Plant Materials Hall of Fame -- The people who made it all happen

PMC Managers

Russell H. Stark
1939-1950 (transferred)

Donald S. Douglas
June 19, 1950 to 1957

Harold L. Harris
October 20, 1957 to January 7, 1961 (promoted to Plant Materials Specialist)

Ronald B. Foster
September 15, 1959 to April 4, 1966 (resigned to farm near Aberdeen)

Charles G. Howard
June 5, 1966 to February 1, 1986 (retired)

Gary L. Young
March 16, 1986 to present

Plant Materials Specialists

Donald H. Douglas
1957 to January 10, 1961 (transferred to Wisconsin as SCS regional plant materials specialist; then to Washington, D.C. as SCS chief plant materials specialist).

Harold L. Harris
January 8, 1961 to June 30, 1973 (retired)

Position moved to Boise state office

Charles A. Mowry
December 8, 1974 to January 11, 1981 (retired)

George R. James
May 3, 1981 to June 30, 1984 (retired)

Jacy Gibbs
November 25, 1984 to present

PMC Agronomists

Hilton Thrapp
prior to 1949

Roy Jensen
1949-1951 (resigned to farm at Ucon, Idaho)

Harold Harris
April 20, 1952 to October 19, 1957 (reassigned to PMC Manager)

Ronald Foster
April 8, 1957 to September 14, 1959 (reassigned to PMC Manager)

Leaford C. Windle
February 19, 1961 to October 22, 1967 (transferred to Tucson, Arizona, as PMC Manager)

Glenn F. Carnahan
May 8, 1966 to September 21, 1968 (transferred to National PMC, Beltsville, Maryland)

Wendell G. Hassell
August 18, 1968 to August 19, 1972 (transferred to Tucson, Arizona, as PMC Manager)

Jack O. Peterson
June 22, 1975 to July 28, 1979 (transferred to Corvallis, Oregon, as PMC Manager)

Gary G. Davis
March 9, 1980 to February 4, 1984 (reassigned to Aberdeen Field Office)

Vern W. McMaster
June 10, 1984 to October 31, 1986 (resigned but returned to SCS in May 1987 as soil conservationist at Lewiston Field Office where he is still located.) Vern also worked as a temporary gardener on the PMC staff from June 5, 1975 to June 9, 1984.

J. Chris Hoag
April 12, 1987 to present

PMC Secretaries

Nellie Heath
Ilene Jensen
Esther (Richardson) Briggs

Gertrude G. Crippen
April 1, 1945 to February 25, 1947
July 1, 1952 to September 25, 1953 (reduction in force)
October 7, 1953 to March 31, 1968 (mandatory retirement at the age of 70; now deceased).

Sylvia M. Nelson
March 18, 1968 to April 2, 1983 (retired)

June (Vaughn) Jeffs
June 12, 1983 to June 7, 1985 (resigned)

Karen N. Slaugh
October 13, 1985 to present

PMC Farm Superintendents

Harry Oman
Mid-1940s.

Harry transferred from the Pullman PMC to the Aberdeen PMC. He died prior to the re-establishment of the PMC in 1954.

Everett Worth
July 3, 1955 to January 10, 1980 (retired)
Everett had worked at the Pullman PMC from October 25, 1954 to July 2, 1955. He died in October 1987.

Brent L. Cornforth
April 5, 1971 to August 31, 1974, Nursery Worker
September 1, 1974 to August 25, 1979, Gardner
August 26, 1979 to present, Biological Technician/Farm Superintendent

Farm/Agricultural Aids

Ed Worth
May 26, 1948 to August 17, 1961, Agricultural Aid/Soil Conservation Aid
August 18, 1961 to March 14, 1964, Agricultural Aid (involuntary termination).
Ed was Everett Worth's father.

Henry (Hank) J. Barrett
May 20, 1946 to August 22, 1957, Agricultural Aid (reassigned to American Falls Field Office as a Soil Conservation Aid. He retired as a Soil Conservation Technician at American Falls on March 26, 1971.)

Tim Satterfield
May 19, 1974 to August 31, 1974, Nursery Worker
September 1, 1974 to present, Gardener

David B. Simonson
November 30, 1980 to present, Gardener