

III CAPITAL OUTLAY FACILITIES 1/B. R. Bertramson 2/

As the Department of Agronomy became identified and assigned a larger and larger role in problem-solving for greater agricultural production, so also grew the needs for housing and facilities. A need for facilities has been felt by the Department during most of its existence. Eventhough great capital improvements have been made to benefit the Agronomy program, facilities have been a limiting factor in many instances.

The home of early "agronomists"--as for all faculty--was the "Crib", occupied in 1892. It was 36' X 60', cost \$1500, and was divided into four rooms. Some members of the faculty were housed in "Old" College Hall-- a red, three-story frame structure also built in 1892 at the site of the present "Murrow East" of the "Edward R. Murrow Communications Center". (Murrow East, previously known as "Arts Hall" was built in 1899 and then called "Science Hall". To make way for the "Old" 1899 Science Hall, the "Old College Hall" was moved to the site now occupied by Bryan Hall.)

In the early days, it was as difficult to identify the needs of the agronomists for space as it was to identify the agronomists. Wilson Hall and Troy Hall--both started prior to our entry into World War I--were finally completed in 1927 (Young 1965). These buildings served as the main location for much of the College of Agriculture until after World War II. Wilson Hall was the "home" of the Agronomy Department until the move to Johnson Hall in 1961.

1/ Part of History of Agronomy and Soils, WSU. 1984.

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In 1928, Congress authorized the Bureau of Chemistry and Soils to establish regional soil erosion experiment stations in regions where soil erosion was a very serious problem. Washington State University is located in the very heart of some of the most serious soil erosion in the country and on some of the most productive soils. Over the last 40 years, this area has lost an estimated 360 tons per acre, or approximately two inches of the top soil. (Kaiser 1979). This is about four bushels of top soil for every bushel of wheat produced in the Palouse. In extreme cases, a ton of soil may have been lost per bushel of wheat produced. The Palouse River which drains this watershed dumps over the Palouse Falls annually enough good top soil to cover a quarter section 80 feet deep (Bertramson, 1979--Data provided by Dr. C. B. Harston, Extension Soil Conservationist.) Harston estimated the three forks of the Palouse River, in a bad erosion year, carry about 27,000 tons of top soil through Pullman or an annual loss of a quarter of a section of top soil one inch deep. ("Old Poultry Hill" was hauled away to prepare a site for Johnson Hall. Moving this 100,000 tons of soil required a round-the-clock stream of carry-alls operating for several months.)

Because of these very serious erosion conditions in this region, Washington State College's application for one of these erosion experiment stations was approved by the Board as a site for one of these facilities. A site of 200 acres located some 3 miles Northwest of Pullman, on the road to Albion was obtained to serve this purpose in 1930. It was paid for and operated for many years largely from receipts gained from farming the land. It was a cooperative venture of U.S.D.A. with the Agricultural Experiment Station of Washington State College.

To purchase the land for this station, fifty farmers and business men underwrote the loan made by the local banks. Paul McGrew, who headed this station for years, often told of the strenuous efforts to pay for this station and to cover the operating expenses out of the receipts of the farming enterprise. Potatoes were raised and some were fed to pigs to generate receipts. Once paid for, the Station became the property of the College. First, it was known as the "Soil Erosion Station", then the "Soil Conservation Field Station". In 1965 it was renamed the "Palouse Conservation Field Station". At that time, a sizeable building with a rain-tower and supporting laboratories and offices was constructed from Federal funds. (Young, 1965).

An excellent accounting of facilities acquisition until 1965 was made by Young. Therefore, only a brief summary will be provided here.

In 1935, the United States Bureau of Soil Conservation established a Nursery at Pullman in conjunction with the College. The State provided 160 acres of land and the Federal Government provided an adjacent 160 for this purpose. The half section was handled as a single unit--first directed by A. L. Hafenrichter, then by John L. Schwendiman. Much fine cooperative work with the Department of Agronomy was conducted there with forages and legumes helpful in an erosion control program. In 1953, this Nursery was re-named, "Plant Materials Center", but the nature and scope of the work continued as before.

By 1945 there were outlying experiment stations at Prosser (Irrigation), Wenatchee (Tree Fruit), Puyallup (Western Washington), Mt. Vernon (Northwest), Lind (Dry Land), Vancouver (Southwest), and the Long Beach (Cranberry-Blue Berry) Stations. Agronomists did work at all of these Stations--though more work was done at some than at others.

At the Main Station, Pullman, land was very scarce for plotwork. Little of the land was of suitable topography to be acceptable for plot work. And the intermixture of these small tracts with other tracts for varied activities greatly handicapped the cereal breeding and improvement program. The plotland was vulnerable to depredation by snow-plows, road-graders, livestock on the loose, joy-riding lovers in search of a place to park, pedestrians, golfers, dogs, birds, etc. Close packing of the nursery plots also meant that crossing of various hybrids was an ever present threat. (Bertramson, 1979). Plotland below steep unprotected slopes was often buried by mud flowing down the hill and onto the plots. And the planted seed was often transplanted to lower lying plots by erosion.

The ideal location for an agronomy farm seemed to be the 220 acres of Bill Mennet's farm some two miles south of the Main Campus of the College on the Johnson Road. Only \$35,000 of state money was available for the purchase and development of the Agronomy Farm. The acquisition and development as related by Bertramson, (1979) follows:

"Ralph Gillespie, President of the Washington State Farm Bureau, and Senator Asa V. Clark conceived the idea of raising the money for this acquisition through farmer and wheat industry contributions, namely via self-assessments of one-fourth cent per bushel on the 1954 crop. The fund-raising project was supported by the Bureau-sponsored Washington-Idaho Wheat League and was sparked by Ward Rinehart of the Colfax Office of the Farm Bureau. He got the job done! He was 105 pounds of nervous energy! The money was raised, the Mennet 220 acres were purchased at an adjudicated price of \$420 per acre. The acquisition of the Agronomy Farm in 1955 with

funds raised by contributions was a real milestone in the evolution and development of the wheat--and other crops--research program at Washington State University. Farmers took pride from the fact that they had actually participated in the acquisition of this important field laboratory. In 1961, an adjacent quarter section (Archer estate) was added to the Farm at a price of \$300 per acre."

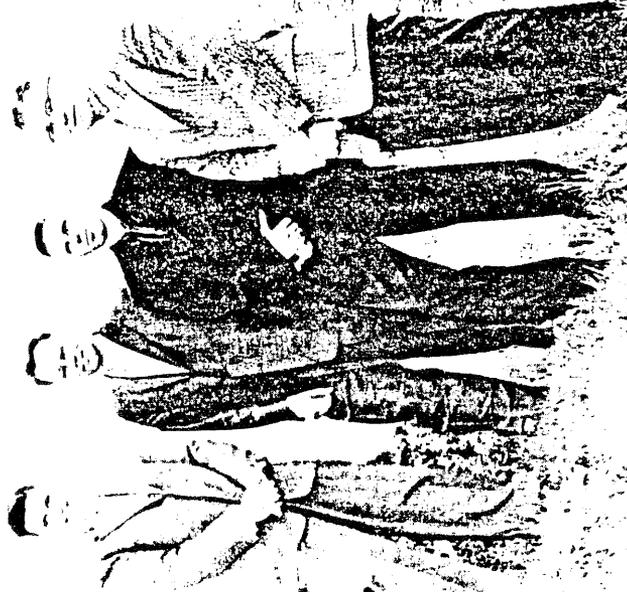
"Bill Mennet's stewardship of that farm over many years provided researchers with one of the finest, cleanest pieces of Palouse land in the State. Bill had often exclaimed, 'No weed is going to keep me from my land!' And Al Law, as th Supervisor of the Agronomy Farm operation, ensured a continuation of that stewardship policy for both weed control and erosion control. Paul Abendroth, the first Farm Manager, and his successor, George Varner, conscientiously carried out the farming operation in keeping with the best management practices. The land was beautifully laid out according to soil capability and topography considerations by Warren Starr and Ray Gilkeson from Soil and Topog Surveys made in cooperation with the Soil Conservation Service of U.S.D.A. Now the University can boast of this field laboratory as one of the finest!"

"Over the years, additional facilities were added at the Farm. Initially, a 140-foot long Headquarters building was constructed. A well was drilled, a supplementary irrigation system was installed for early emergence studies. A fuel and lubrication building, a chemical storage building, a machinery shed, a sheaf storage building and, finally, a residence for the Farm Manager were added to complement the excellent plotland and to make this an

SPILLMAN FARM

FIELD LABORATORY
CEREAL RESEARCH &
CROP IMPROVEMENT

WASHINGTON STATE UNIVERSITY
U.S. DEPARTMENT OF AGRICULTURE COOPERATING
LAND PURCHASED BY WASHINGTON WHEAT GROWERS & INDUSTRY



The Agronomy Farm will henceforth be known as the Spillman Farm. WSU plant breeders heartily approve the new name as recognition for their illustrious predecessor who came to WSU in 1894 and rediscovered in 1900 some of the Mendelian laws of inheritance. Pictured near the sign left to right are WSU Agronomists, Drs. R. A. Sneath, C. F. Johnson, R. E. Allan, and O. A. Vogel—all well-known locally and nationally for their accomplishments in Plant Breeding and Genetics. WSU Agronomy and Men, 1959-60 pp17A.

outstanding field laboratory valued at a million dollars."

WSU AGRONOMY AND MEN later called The AGRONOMIST dedicated the 1959-1960 issue to Dr. W. J. Spillman. On page 2 of that issue it was announced the "Agronomy Farm" had been officially named by the Board of Regents as, the "Spillman Farm." On Pages 16 and 17, Dr. Nilan told the story of Dr. Spillman which accounted for naming the Farm after him. On Page was pictured the four plant breeders standing by the newly prepared sign at the entrance to the Farm. It is reproduced here for reference.

The Plant Introduction Station, a Regional U.S.D.A. project was located at WSU in 1952 largely as a result of broad promises made that the agronomy farm and seed house to be acquired would provide excellent accommodations for the Station here. Dr. Lowell Mullen, first Director of this Station often laconically commented that, "WSU was a 'promising' institution!" Never-the-less, facilities of a sort were provided and the program got under way. Subsequently, U.S.D.A. funds greatly enhanced the seed-storage and greenhouse facilities for this program. Additional land was acquired on the Snake River in cooperation with the Corps of Engineers.

In 1955, a two-biennium building program for a Seedhouse was started. The completed facility, including special equipment cost about one million dollars. Subsequently, in 1978 the "Alvin G. Law Seed Storage Annex Building" was erected by the Washington State Crop Improvement Association through its Foundation Seed Program north of the Campus--near the Rain-tower Building at the Palouse Conservation Field Station. Facilities are now in place to handle the entire gamute of crop improvement activities for an assured source of superior varieties

from the making of the original crosses, testing of segregating generations, and production of Breeder and Foundation seed.

Greenhouses were a decidedly limiting factor in the agronomic research program in the early decades of the twentieth century. The construction of Todd Hall in the late forties required the removal of a bank of old greenhouses. Another bank of greenhouses across the street and west from Troy Hall yielded to the march of progress when the Physical Sciences Building was constructed. These obsolete and inadequate greenhouses were replaced over a period of time by a large Greenhouse Complex across the street from the new Seedhouse, and north of Farm Way. Presently, these facilities barely serve the needs of the research program if their use is carefully programmed--always a problem in full utilization of greenhouses. More of these facilities are in prospect.

Growth chambers came into vogue in the sixties. The prefab, non-walk-in units became very popular. They provided great flexibility in establishing controlled growth conditions. The prospects for refinements are almost limitless. Dr. C. F. Konzak became a pioneer in the development and use of these on the campus. Through his close association with the designers and manufacturers of these, a number of the growth chambers were obtained at a very reasonable price. Of course, there were "bugs" in these early prototypes; but these were worked out as the researchers gained experience with them. A building of the same silhouette as the greenhouses was constructed specifically to house these banks of growth chambers. In a decade, 23 of these were installed in this building. Many of these were obtained and used by agronomists.

In 1957, plans and work began on the construction of the Plant Sciences Building complex to provide a home for the plant science departments so they could vacate the top floor of the Holland Library, Wilson Hall, and numerous nooks and crannies about the campus. The Plant Science Building was completed and occupied in 1961. Unfortunately, ROTC was also moved into it. Agronomy had expanded so much in programs and personnel since the original plans were drawn up in the late forties that crowding was still a problem. The situation was further exacerbated by an acute shortage of funds for equipment and furnishings. Some of the Agronomy laboratory rooms were left entirely unfinished--no lab benches, hoods, etc. But in early 1961 the agronomists from a half dozen locations on campus finally were housed under one roof. In the four-story structure, Agronomy was assigned approximately an acre (43,000 sq. ft.) of space. Surely the occupancy of this fine new building was a milestone in the growth and development of the Department. Unfortunately, it took many biennia before the space was finished and furnished with appropriate equipment.

The Plant Sciences Building, later named "Johnson Hall" after Dean Emeritus E. C. Johnson, marked a transition to the era of modern office and laboratory buildings. It was constructed with the central core easily accessible to the utilities and all air-conditioned. The idea of air-conditioning the offices had not yet caught on. Hence, the offices lining the perimeter were not air-conditioned. These offices were blessed with ample lighting through a continuous line of windows. On days of bright sunshine--summer or winter--these south exposure rooms quickly took on the nature of an oven. Fortunate were those agronomists who were assigned offices on the shady, north side of the building.

This was the last major building constructed on the campus without full air conditioning throughout. Subsequently, more attention was given to reduced daylight exposure on the direct sunlight-exposed portions of the structures. (It was probably a popular thought among the faculty that the south exposure of Johnson Hall was an appropriate location for the office of the chairman. In keeping with his "hot seat" he had a room to match!)

An excellent recapitulation of these developments of facilities and related events is covered in AGRONOMY AND MEN (later called the AGRONOMIST) 1967-1968 pp 5-7. (Bertramson).

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