

# 40 Years of Horticulture

By T. M. McCall

The growth and development of plantings of trees, shrubs and flowering plants has kept pace with the growth and development of the Northwest School of Agriculture and Experiment Station. The bare prairie Experiment Station of 1895 has been transformed to a beauty spot of the northwest. The original windbreaks were planted under the direction of the first superintendent of the Station, T. A. Hoverstad. The plans followed in the laying out of the grounds and in locating new buildings were adopted in 1911. The original plans were drawn by a firm of competent landscape architects and credit for the adoption of the plan should go to former Superintendent C. G. Selvig.

The record of the original planting of trees and shrubs covers a forty-year period while the record of experimental work in Horticulture dates back to 1911.

## TREES, SHRUBS AND FLOWERS

More than 18,000 broadleaved trees were used in the original windbreak and woodlot plantings made in 1896-97. During the five-year period beginning with 1912 an additional planting of 12,000 trees and shrubs was made on the campus and in the windbreaks. Tree and shrub plantings since that date have been confined principally to the campus areas with some replacement plantings in the windbreaks. The trees, shrubs and flowering plants used in campus beautification during the past eighteen years included: two hundred sixty-five specimen evergreens of twelve species, one thousand twenty-two broadleaved trees of twenty-one species, seven thousand shrubs of forty varieties, sixty varieties of herbaceous perennials and more than one hundred varieties of annual and bedding plants.

A great deal of the stock of broad-leaved trees and the more common species of shrubs has been produced on the Station grounds. Specimen trees of the different species of evergreens for campus, sunken garden, demonstration garden and rock garden planting were purchased as needed evergreens for later campus and windbreak planting and the new varieties of shrubs have been purchased as lining out stock and planted in the nursery blocks.

Black Hills and Colorado Blue Spruce have proved to be the best all around evergreens for the heavy clay loam soils; following next in order are Red Cedar, common Arborvitae, Mugho and Scotch pines.

## FRUITS

Extensive plantings of tree fruits involving more than 2000 trees have indicated that:

1. Only fruits of the first degree of hardiness can be recommended for the Red River Valley.

2. Hardiness in tree fruits is closely correlated with growth control. Hardy varieties show winter injury when late fall growth is encouraged. Late planted cover crops check late season growth of trees and gives the best cover for winter protection.

3. Bush and cane fruits can be profitably grown; strawberries, however, will not succeed on soils with high alkalinity. Raspberries do best with winter cover.

4. Heavy applications of sulphur will reduce soil alkalinity, while the use of sulphur is not practical under ordinary conditions, yet it is of interest to note that 20 tons of sulphur per acre reduced the Ph reading from 8 to 6.4.

5. All tree, bush and cane fruits have succeeded better following the cropping of alkali soils with sweet clover than before the clover was grown.

## GARDEN CROPS

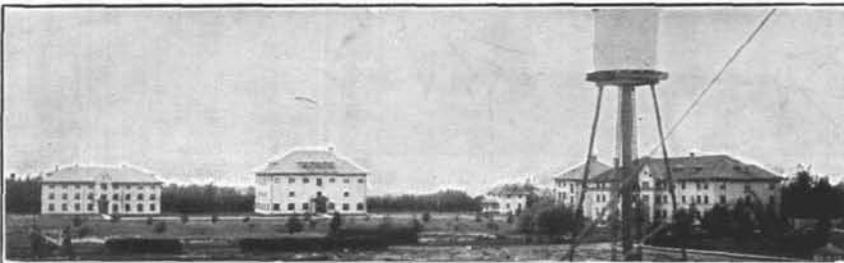
Variety trials of 75 to 125 varieties of garden crops each year have determined varieties best suited for the soil and climate of the Red River Valley.

Tomato cultural tests have demonstrated that larger and earlier yields can be obtained by prostrate culture with late summer pruning than by early pruning and staking the plants. The cooperative tomato breeding project has developed several early strains of good type and high yielding qualities ready to be released to growers.

Overhead irrigation has proved profitable to garden crops during dry years and is a good means of crop insurance in the Red River Valley where an abundant supply of water is available and the overhead cost of pipe or trenching can be kept at a minimum.

## POTATO VARIETIES

Extensive variety tests have indicated that early varieties desirable for both seed and table stock purposes are most profitable for Red River Valley growers. Varieties ranking in order of yield and importance are Irish Cobbler, Early Ohio and Triumph. The Northwest Sta-



When Mr. McCall Came

