

**PAPERS ON HORTICULTURAL AND
KINDRED SUBJECTS; ADDITIONAL
EVIDENCE ON THE
COMMUNICABILITY OF PEACH
YELLOWS AND PEACH ROSETTE**

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WILLIAM SAUNDERS & ERWIN F. SMITH

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KINDRED SUBJECTS; ADDITIONAL
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YELLOW AND PEACH ROSETTE**

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U. S. DEPARTMENT OF AGRICULTURE.

PAPERS

ON

HORTICULTURAL AND KINDRED SUBJECTS,

BY

WILLIAM SAUNDERS,

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Superintendent of Gardens and Grounds, U. S. Department of Agriculture.

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LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
Washington, D. C., June 5, 1891.

SIR: I have the honor to submit herewith for republication a series of papers on horticultural and kindred topics previously published in various Annual Reports of this Department, which are no longer available for distribution. These papers have been brought together, in accordance with your suggestion, to afford a convenient means of replying to many requests for information on these topics.

WILLIAM SAUNDERS,
Superintendent of Gardens and Grounds.

Hon. J. M. RUSK,
Secretary of Agriculture.



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PAPERS ON HORTICULTURAL AND KINDRED SUBJECTS.

LANDSCAPE GARDENING.

Landscape gardening is a comprehensive art, combining the genius of the landscape painter with the art of the practical gardener; the exact knowledge of the engineer with the poetical imagination of the artist. The professor of this art should also possess a competent knowledge of the general principles of botany, architecture, geology, hydraulics, hydrostatics, mechanics, laws of heat and ventilation, horticulture, and vegetable physiology. This may seem rather a formidable array of acquirements, but in the multifarious details of selecting and arranging the style and location of rural residences and their accompanying domestic auxiliary structures; the drainage of lands; the location and construction of roads; the preparation of garden sites and the erection of horticultural buildings; the decoration of grounds for the purposes of beautifying the surroundings of rural homesteads, the more ambitious suburban villas, and public buildings of every description; and the artistic disposition of arborescent growths, so as to produce the most varied yet distinct beauties of which the scenery is susceptible, necessitate a knowledge more or less intimate and extensive with these as well as with other branches of science.

During the last twenty years much attention has been given to landscape gardening, both in the laying out of private grounds and in the design and construction of public parks. Some of the latter are deserving of the highest commendation, both in design and execution, and have been the means of instructing and familiarizing the public with the capabilities and beauties of the art, and in educating the popular taste to an appreciation of the development of rural improvements and their beneficial effects upon the moral and physical condition of society.

It can not be too forcibly urged upon the attention of those who are intrusted with educational institutions that one of the most certain means of encouraging a desire for studies in natural history, and forming correct principles of taste in young minds, is that of landscape embellishments of school houses and college grounds. This has become one of the greatest wants in existing systems of education and can not long remain neglected.

It is not proposed to offer a treatise on landscape gardening, but rather to allude briefly to some of the more prominent points and subjects that will naturally arise for consideration in the location of residences and public buildings, and in the arrangement of the principal accessories and the execution of various details connected with rural improvements.

GARDENING AND CIVILIZATION.

Gardens are of the most remote antiquity. Our first parents were placed in a garden, and the writings of the oldest historians and poets contain various descriptions and traditions concerning the extraordinary beauty of the gardens. History proves that a taste for gardening has kept pace with the progress of civilization, and that it has always exerted a powerful influence upon the passions and feelings of mankind. Much of the decorative beauty of architecture has resulted from study of the combinations and graceful lines of the vegetable kingdom. Two thousand years before the Christian era Lydia was famed for its gardens. The gardens of Babylon are traditionally ranked among the greatest successful combinations of skill and wealth. The Persian kings were very partial to gardens, which were cultivated as much for their beauty as for their fruit, and even in gardens of limited extent the trees were arranged in regular lines and figures, and the walks bordered with tufts of roses, violets, and other odoriferous plants. The Greeks copied from the Persians, both in their gardening and their architecture. Epicurus took great delight in his garden, and there taught his philosophy. The Greeks excelled in architecture more than in gardening, although a public park or garden was planted by Cimon, the general, at Athens, furnished with streams of water and supplied with shady groves, with gymnasia and places for exercise. They had flower markets which were well patronized, and learned or distinguished men wore crowns of flowers, and successful warriors were decorated with wreaths and garlands. Their garden decorations partook largely of statuary and other architectural appendages.

The Romans devoted much of their wealth to the adornment of their gardens and pleasure parks. Lucullus seems to have had large ideas of magnificent expenditures in this direction, being represented as having sumptuous villas in different parts of Italy, so that he could enjoy an agreeable climate every month in the year. Cicero had fine plantations at his Arpinum villa. Sallust, who made a fortune in the government of Numidia, devoted largely of his means to the laying out of gardens which were for a long period the pride of Rome. Pliny's villa appears to have been laid out with more taste and less of ostentatious display than some others, since the pastoral beauty of his grounds is highly praised. It is apparent, however, that the principal features of ornamentation were derived from vases, fountains, and similar works of art that bore the resemblance of wealth, and were at once objects that con-