

Second Annual Report

OF THE

Arizona Agricultural Experiment Station.



TUCSON:

December 31st, 1891.

ARIZONA
Agricultural Experiment Station.

BOARD OF CONTROL:

Board of Regents of the University.

Merrill P. Freeman,	- - - - -	President.
John M. Ormsby,	- - - - -	Secretary.
Sehm M. Franklin,	- - - - -	Treasurer.
John Gardiner,	- - - - -	
Hon. N. O. Murphy,	- - - - -	Secretary of Territory.
Hon. Geo. W. Cheyney,	- - - - -	Supt. of Public Instruction.

STATION STAFF:

F. A. GULLEY,	Director.
C. B. COLLINGWOOD,	Chemist.
V. E. STOLBRAND,	Meteorologist and Irrigation Engineer.
A. W. TOUMBY,	Botanist and Entomologist.
E. L. BENTON,	Horticulturist.
J. H. HEBERLY,	Assistant Chemist.
M. WALKER,	Assistant Horticulturist.
R. S. STOCKTON,	Stenographer.
R. J. FERGUSON,	Machinist and Engineer.
M. MOSS, Phoenix	Station Foreman.

THE BOARD OF REGENTS,
UNIVERSITY OF ARIZONA,
TUCSON, ARIZ.

December 31st, 1891.

Hon. N. O. Murphy,
Acting Governor.

DEAR SIR:--In accordance with Section 3 of an Act to establish Agricultural Experiment Stations, etc., approved March 2nd, 1887, I beg leave to submit the following report of the operations of the Agricultural Experiment Station, connected with the University of Arizona, for the fiscal year ending June 30th, 1891.

At the date indicated the various lines of experimental work were not sufficiently advanced to arrive at results. The limited time, however, since the organization of the station work has given evidence of the great practical benefits to be ultimately derived from tests and experiments conducted in a methodical and intelligent manner. The testing and analyses of soils and waters for the purpose of determining the proper and economical application of the latter for the purpose of irrigation will of themselves be of inestimable value to the Territory.

Under the able direction of Prof. Gulley, Director of the Station, every effort is being made by the Station Staff to realize at the earliest possible moment the benefits to result from educated effort. Bulletins will follow, giving results as fast as obtained, and these will be placed in the hands of everyone in the Territory sufficiently interested in the matter treated of to ask for them. It is the earnest desire of the Board of Regents to bring the people of the entire Territory into close relationship with the Station Staff; mooted questions, when presented, will be considered from an interested standpoint, and queries answered!

by the light of the best information possessed by the different members of the Staff, and further investigations made when necessary. Correspondence is solicited, and it is hoped that a personal interest may be developed all over the Territory in the lines of work and experiment contemplated.

The Station Staff, as now constituted, is appended, also a statement of receipts and expenditures for the year.

Very Respectfully,

MERRILL P. FREEMAN,

President.

UNIVERSITY OF ARIZONA,

Agricultural College and Experiment Station.

December 31st, 1891.

Hon. M. P. Freeman,

President of the University of Arizona.

SIR:—I have the honor to present the following brief report of the work of the Agricultural Experiment Station for the year ending June 30th, 1891.

In accordance with the plan of organization and work submitted to the Board of Regents last fall, and approved, we have established four stations: one at the University which is headquarters; two in the Salt River Valley, one near the city of Phenix and one three miles south of Tempe; and the fourth nine miles east of Yuma in the lower Gila River Valley. In addition to the above, a branch of the University station has been established on the farm of Mr. Grossetta three miles from the University grounds, to afford opportunity to test the growing of fruit trees on soil quite different in character from that surrounding the University.

Quite an extensive variety of fruits, trees and other plants

have been planted at the several stations, and work begun in the study of questions relating to the use of water in irrigation, and in other problems of practical interest to the people of the Territory.

The unprecedented flood of last spring caused such destruction at the Yuma station that it has been thought wise to abandon the place selected and begin anew on higher ground as soon as land with an assured supply of water may be secured.

At the University a very complete chemical laboratory has been equipped, with facilities for all kinds of analytical work, and apparatus has been ordered, and plans are being perfected for the general determination of duty of water, water supply, soil physics, matter in suspension or in solution, in river waters used for irrigation, and a collection and examination of indigenous plants possessing medicinal properties, or matter of commercial importance.

Beginning operations last winter, the work of the station has not been under way long enough to report results of investigations begun. With the exception of the washout at the Yuma station, our work has progressed favorably.

Respectfully Submitted,

F. A. GULLEY,

Director.

APPENDIX, Dec. 31st, 1891.

In addition to the report covering the work of the year ending June 30th, 1891, I take the liberty to state that we have up to this present time issued four bulletins:

No. 1. "Organization and Plan of Work."

No. 2. "Notes on some of the Range Grasses of Arizona, and Overstocking the Range."

No. 3. "Irrigation in Arizona."

No. 4. "Waters and Water Analysis."

Statement of receipts and expenditures of the Agricultural Experiment Station, University of Arizona, for the fiscal year ending June 30, 1891.

Receipts, 1890.

August 12, Cash.....	\$ 3,750 00
October 7, Cash.....	3,750 00

Receipts, 1891.

January 8, Cash.....	3,750 00
April 1, Sale of Building at Phoenix Station.....	85 00
April 22, Cash.....	3,750 00
Balance.....	99 58
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	\$ 15,184 58

EXPENDITURES.

Miscellaneous.....	\$ 128 68
Salaries.....	3,929 99
Legal.....	40 00
Printing and Stationery.....	62 80
Traveling and Incidental Expenses, Director and Staff.....	817 55
Wagons, Horses, Harness, etc.....	798 00
Implements.....	277 36
Supplies.....	41 04
Feed, Station Horses and Hired Teams.....	946 84
Labor.....	5,597 86
Postage.....	18 00
Repairs.....	214 45
Maintenance.....	872 91
Trees, Plants, etc.....	320 34
Library.....	28 27
Apparatus.....	351 53
Implements.....	207 66
Buildings.....	343 80
Water Privileges, Irrigation and Allied Expenses.....	187 50
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	\$ 15,184 58

JOHN M. ORMSBY,

Secretary.

Correct:

SELIM M. FRANKLIN,
Treasurer.