

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY

RECEIVED

DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC

Sanborn Field and Soil Erosion Plots

AND/OR COMMON

Sanborn Field and Soil Erosion Plots

2 LOCATION

STREET & NUMBER

College Avenue between Bouchelle and Rollins Avenues NOT FOR PUBLICATION

CITY, TOWN

Columbia

CONGRESSIONAL DISTRICT

STATE

Missouri

VICINITY OF

CODE

COUNTY

Boone

CODE

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input checked="" type="checkbox"/> OCCUPIED	<input checked="" type="checkbox"/> AGRICULTURE <input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL <input type="checkbox"/> PARK
<input type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input checked="" type="checkbox"/> EDUCATIONAL <input type="checkbox"/> PRIVATE RESIDENCE
<input checked="" type="checkbox"/> SITE	PUBLIC ACQUISITION	ACCESSIBLE	<input type="checkbox"/> ENTERTAINMENT <input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT <input checked="" type="checkbox"/> SCIENTIFIC
	<input type="checkbox"/> BEING CONSIDERED	<input type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> TRANSPORTATION
		<input checked="" type="checkbox"/> NO	<input type="checkbox"/> MILITARY <input type="checkbox"/> OTHER:

4 OWNER OF PROPERTY

NAME

University of Missouri

STREET & NUMBER

Missouri Agricultural Experiment Station

CITY, TOWN

Columbia

VICINITY OF

STATE

Missouri

5 LOCATION OF LEGAL DESCRIPTIONCOURTHOUSE,
REGISTRY OF DEEDS, ETC.

Boone County Courthouse

STREET & NUMBER

CITY, TOWN

Columbia

STATE

Missouri

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

National Survey of Historic Sites and Buildings

DATE

June 13, 1963

 FEDERAL STATE COUNTY LOCALDEPOSITORY FOR
SURVEY RECORDS

Historic Sites Survey, National Park Service

CITY, TOWN

Washington

STATE

D.C.

7 DESCRIPTION

CONDITION

EXCELLENT
 GOOD
 FAIR

DETERIORATED
 RUINS
 UNEXPOSED

CHECK ONE

UNALTERED
 ALTERED

CHECK ONE

ORIGINAL SITE
 MOVED DATE _____

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Sanborn Field and the Soil Erosion Plots are located on the University of Missouri campus in Columbia. The original plan for Sanborn Field provided 39 tenth-acre plots in a rectangular, five acre field; the plots were to be separated by borders three feet wide. In 1904 the streets surrounding the field were changed, making it necessary to abandon Plot 8 and to reduce in size the remaining plots. In order to provide wider borders, and improve the ease of handling the plots, they were further reduced in 1914 to one-fourteenth acre each. At that date, and again in 1928, some plots were changed to include more modern methods of soil treatments.

Sanborn Field was originally set in open countryside. Rapid expansion in Columbia since 1888 has left the field surrounded by buildings and traffic. It has also become a favorite target of the local bird population, resulting in below-potential yields in plots with edible seed.

The Soil Erosion Plots are in a tiny parcel 52-1/2 x 118-1/2 feet, surrounded by a chicken-wire fence.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION	
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input checked="" type="checkbox"/> SCIENCE	
<input type="checkbox"/> 1500-1599	<input checked="" type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE	
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN	
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER	
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION	
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)	
		<input type="checkbox"/> INVENTION			

SPECIFIC DATES 1888 to present BUILDER/ARCHITECT n/a

STATEMENT OF SIGNIFICANCE

The Sanborn Field and Soil Erosion Plots are two separate agricultural experiments both situated on the University of Missouri campus in Columbia, Missouri. The Sanborn Field was established in 1888, the second oldest soils and crop experimental field in the United States. (The Morrow Plots in Urbana, Illinois, were started in 1876). The Soil Erosion Plots were the first plots in this country for measuring runoff and erosion as influenced by different crops. This study was begun in 1917.

The original 1888 plan of experiment at Sanborn Field was to test the value of farm manure in continuous cropping systems and in rotations of different lengths. In 1913 the treatments of a number of plots were changed to methods of cropping and soil treatments in common practice at that date. These included the introduction of commercial fertilizers, and bonemeal. In 1928, other plot plans were changed.

The Sanborn Field experiments have made several major contributions to agriculture since 1888. These include:

1. Proof that high yields of quality grain may be produced perennially on land properly treated with chemical fertilizers or manure. Plots receiving such treatments since 1888 were still producing high yields in 1974.
2. The field has shown the merits of crop rotations, but has also demonstrated the inefficiency of rotation without fertilization.
3. Soil changes have shown the depleting or soil-building properties of different crops in this Midwest area.
4. The organism, stretomyces aureofaciens, the ancestral source of aureomycin, was first isolated from plot 23 at Sanborn Field in 1945.
5. Studies in the early 1960's showed that exhausted soils can be restored to productivity through proper rotation and fertilization.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Ray H. Mattison, "Sanborn Field," National Survey Record, 1963.

G. E. Smith, Sanborn Field: Fifty Years of Field Experiments with Crop Rotations, Manures and Fertilizers, 1942.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 5

UTM REFERENCES

(discontinuous property; three UTM references as locational device)

A	15	559200	4310300	B	15	558370	4309810
	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
C	15	558860	4310570	D			
	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING

VERBAL BOUNDARY DESCRIPTION

The boundaries for Sanborn Field are described by the red line on the accompanying map B, labelled "University of Missouri Sanborn Field," and dated 1938. The field is approximately rectangular, 255 x 818 x 272 x 832 feet, and is defined by the inside curblines of College Avenue, Bouchelle Avenue, an alley between the field and the Veterinary Science Building, and Rollins Avenue as they intersect to enclose Sanborn Field.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Stephen Lissandrello, Historian, Landmarks Review Project

ORGANIZATION

Historic Sites Survey, National Park Service

DATE

5/16/75

STREET & NUMBER

1100 L Street NW.

TELEPHONE

CITY OR TOWN

Washington

STATE

D.C.

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

(NATIONAL HISTORIC LANDMARKS)

Designated: July 19, 1964

date

Boundary Certified: 2/15/77

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

KEEPER OF THE NATIONAL REGISTER

DATE

(NATIONAL HISTORIC LANDMARKS)

2/15/77

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6. The role of soil humus in fertility maintenance has been shown by laboratory studies and from crop yields on this field.

The study using the Soil Erosion Plots at Columbia was begun in 1917, with the first results published six years later. Six small, parallel plots running slightly downhill were used to investigate the causes of declining soil productivity. The experiment provided the foundation for the soil conservation movement in this country, and was the prototype for future experiments by the U.S.D.A. throughout the United States.

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CONTINUATION SHEET

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The boundaries for the Soil Erosion Plots are described by the red line on the accompanying sketch map C, labelled "Soil Erosion Plots" and dated March 14, 1975. The plot is rectangular, 52-1/2 x 118-1/2 feet, and is defined by the high chicken-wire fence which separates it from Hitt Street to its east, Stadium Road to its south, and a parking lot to its north and west.