IOWA STATE UNIVERSITY

Land Management Plan for
Campus and Ames Area Agricultural Properties

December 1996
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Prepared by:
College of Agriculture,
College of Veterinary Medicine, and
Vice President for Business and Finance

Review Task Force and Contributors:
Provost John Kozak
Vice President Warren Madden
Dean David Topel
Dean Richard Ross
Associate Vice President William Whitman
Assistant Provost Ellen Rasmussen
Associate Professor Mark Honeyman
Joan Hopper, Director
Cathy Brown, Planner and Author
Mark Gannon, Land Manager

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Iowa State University
Land Management Plan for
Campus and Ames Area Agricultural Properties

Executive Summary
Iowa State University's Land Management Plan for Campus and Ames Area Agricultural Properties was created to identify and prioritize current and future land-use and land management needs in the Ames area. The plan is to ensure that the university has adequate and accessible land to support the teaching and research activities of the colleges of Agriculture and Veterinary Medicine and research by faculty in other ISU colleges.

The plan outlines several goals for efficient land use that are compatible with Iowa State's agricultural teaching and research requirements and Ames' urban development. The goals are:

- Consolidate university land holdings for more efficient operations. It was recommended that the colleges of Agriculture and Veterinary Medicine consider consolidating facilities when possible. Also, land should be clustered by program needs and should be less than a 15-minute drive from central campus.

- Relocate agricultural activities that are incompatible with Ames' urban growth. It was recommended that Iowa State dispose of 999 acres of land in the Ames area. Also, a buffer of land should be established between Ames and certain agricultural activities, such as the livestock teaching and research areas.

- Evaluate land needs as much as possible to meet the demands of specific programs. Also, land use should be coordinated with university and college strategic plans.

- Identify strategies for land management that will allow the ISU Foundation to meet its land-disposal goals. Details for land transactions are not fully developed.

- Use funds generated from land disposal for acquisition of land that is strategically located and facility relocation. Details for land transactions are not fully developed.

- Maintain adequate land holdings for unspecified university growth. It was recommended that land within the Highway 30 and Applied Science Center clusters be retained for future needs.
Iowa State University
Land Management Plan for
Campus and Ames Area Agricultural Properties

Statement of Purpose
Iowa State University is creating a framework for agricultural land management that will accommodate current and potential teaching and research needs. This plan is the university’s first effort to document a land-use and management strategy for agricultural properties, and it will serve as a guide for land use, acquisition and disposal in the next 25 to 30 years. This plan also will allow the university to identify and prioritize its goals and to respond to external development pressures in the surrounding communities.

Introduction
This report is intended to provide an overview of the university land holdings used for essential activities within the colleges of Agriculture and Veterinary Medicine. The report consists of an inventory of properties, discussion of future property acquisition alternatives and recommendations for agricultural land use. This report focuses on land within or near Ames in Story and Boone counties.

Agricultural land and farms are critical to the College of Agriculture and, to a limited extent, the College of Veterinary Medicine. However, faculty is several colleges also use agriculture farms to further their research needs.

The university generally has adequate land to support the various program activities of the colleges of Agriculture and Veterinary Medicine. However, on many farm sites the facilities are in a declining condition, outdated, and sub-standard to the industry. Several farm sites are located adjacent to urban growth areas resulting in potential conflicts between land development and agricultural activity. In other locations farm sites are separated by several miles resulting in inefficiencies in the management of farm operations. This is particularly significant in the management of livestock operations. This report proposes to review the land holdings and facility conditions for development of a new property management strategy. This strategy will position the colleges of Agriculture and Veterinary Medicine and the university as a leader in teaching, research and outreach for the next 25 to 30 years.

Land managed by the colleges of Agriculture and Veterinary Medicine is held by a number of different entities and include the State of Iowa, ISU Foundation (ISUF), Iowa Crops and Soils Research Association (ICSRA), and the Committee for Agricultural Development (CAD). The ownership of the land will have an impact in the long term plan.

Historical Perspective
Iowa State University is fortunate to have had adequate land for agricultural activities near the campus. The vision of previous administrators has enabled the university to expand the campus and facilities onto agricultural lands and continue to operate agricultural teaching and research within 15 minutes of the core campus.

Over the past 30 years the university has developed new facilities on approximately 750 acres of land that was managed by the College of Agriculture at that time. These new facilities include: National Soil Till Laboratory, Seed Lab, Agronomy Addition, Meats Laboratory, Greenhouses, Iowa State Center.

ICSRA land transferred to CAD, November 1996
College of Veterinary Medicine, Football Stadium, Maple Willow Larch Residence Halls, Towers Residence Halls, Veenker Golf Course relocation, Schilltner Village, University Village, Intramural fields, ISU Research Park, Elwood Drive, Cross Country Track, National Swine Research Center, and parking lots. During that same time the College of Agriculture moved several livestock units from the northeast corner of campus to South State Street.

Due to the university's development patterns, management decisions for agricultural land holdings near the campus should not be limited to agricultural activities, but should consider future unspecified expansion of general university needs.

Goals

Listed below are a series of goals which have guided the development of the land-use plan.

1. Consolidate university land holdings to provide for efficient operations. This includes teaching, research, outreach and farm operations and management.
   - Consider opportunities for consolidation of facilities between colleges of Agriculture and Veterinary Medicine.
   - Maintain a travel distance of less than 15 minutes from the campus core to the teaching and research farm sites.

2. Relocate agriculture activity which is incompatible with urban growth of Ames.

3. Evaluate land needs as much as possible on the basis of program demands. Coordinate with university and college strategic planning activities.

4. Identify strategies for land management which will allow the ISU Foundation the opportunity to meet its goals for land disposal.

5. Use funds generated from land disposal for land acquisition and facility relocation.


Report Contents

The properties discussed in the land-use plan are organized into clusters based on program activities and geographical proximity. Each cluster is identified by a letter and a label. The discussion of each cluster consists of a listing of properties and ownership, the program activities and issues, and recommendations. A cluster map is provided on page 4, with detailed color maps highlighting the recommendations for each cluster referenced in the discussion.
Property Discussion and Analysis

A. Animal Science Cluster

1. Description, (see map, page 7)
   a. Located approximately 2 miles south of campus.
   b. Consists of the following farms:
      1) Animal Science Teaching Farms, 413.6 ac., ISU;
      2) Animal Reproduction Laboratory, 40 ac., ISU;
      3) Aceola Farm, 80 ac., ISUF;
      4) Ag 450 Farms, 187 ac., ISU;
      5) Ag 450 Annex Farm, 59.5 ac., ISU;
      6) Bennet Farm, 160 ac., ISUF;
      7) Poultry Science Farm, 14 ac., ISU;
      8) South State Research Farm, 4.6 ac., ISU;
      9) Been Farm, 160 ac., ISUF;
     10) South Woodruff Farm, 172 ac., INCRA;
     11) North Woodruff Farm, 170 ac., ISU;
     12) Powers Farm, 164.4 ac., CAD;
     13) Johnson Farm, 148 ac., ISUF;
     14) Norman Farm, 38 ac., ISU.

2. Program Activity
   The Animal Science Cluster consists of livestock units used by the Animal Science Department for swine, sheep, beef cattle and poultry laboratories in support of classroom teaching and to a limited extent research and teaching. Cropland surrounding the buildings provides feed production, forage crops, bulk crop production and animal waste disposal. These properties will serve as land to consolidate with other animal herds and associated management activities. The Agriculture Education Studies 450 Farm is within the Animal Science Cluster. This laboratory farm provides students with management experiences on a corn belt grain and livestock farm.

With over 2 square miles of contiguous property, the buffer created between animal teaching and research and other private development will serve the university and its neighbors well. The cluster is located within 3 miles of the campus core and accessible from several Ames roads.
3. Issues/Management Recommendation
   a. Desire to consolidate Animal Science teaching and research activities within this cluster. This includes animal feed production and animal waste management for most herbs.
   b. In the short term, maintain Ag. 450 Teaching Farm, with long term consideration for relocation.
   c. Acquire land near the Animal Science Cluster as it becomes available to respond to projected needs in teaching and research.
   d. Study the potential for the colleges of Agriculture and Veterinary Medicine to share teaching and research facilities within the cluster.
   e. In the long term, the university should acquire land owned by the ISU Foundation through land trade or purchase, including:
      1) Acoloa Farm, 80 ac.;
      2) Been Farm, 160 ac.;
      3) Bennett Farm, 160 ac.;
      4) Johnson Farm, 148 ac.
B. Highway 30 Cluster

1. Description, (see map, page 10)
   a. Located approximately 1 mile south of campus, north and south of Highway 30, transected by Mortensen Road and State Street. This cluster is partially within the Ames City limits and borders the campus.
   b. Consists of the following farms:
      1) Plant Introduction Station, 37 ac., ISU;
      2) Dairy Science Farm, 103.5 ac., ISU;
      3) Old Horticulture Farm, 30.6 ac., ISU;
      4) Swine Farm (old), 120 ac., ISU;
      5) Johannie Farm (north of Mortensen Road, south of Mortensen Road, south of Highway 30), 108 acres, ISUP;
      6) Curtiss Farm, 159.6 ac., ISU;
      7) West Curtiss (Rossi) Farm, 57.6 ac., ISUP/ISU;
      8) East Curtiss Farm, 22.5 ac., ISU;
      9) Milliken Farm, 40 ac., CAD.

2. Program Activity
   The Highway 30 Cluster consists of several program activities including the Plant Introduction Station, a regional research and seed bank for the USDA; Dairy Science teaching farm, which serves as a laboratory to raise, pasture, and produce feed and manage waste of the dairy herd; the Curtiss farm, used to support Plant Pathology, Genetics, Weed Science and Agriculture Experiment Station research plots and houses the Committee for Agricultural Development (CAD) Seed Plant headquarters; and the ISU Press. Portions of this cluster support university activities such as athletics and Facilities Planning and Management.
3. Issues/Management Recommendation
   a. Retain all university-owned property east of State Avenue for unspecified long term land use.
   b. Develop property north of Mortensen Road as part of the Southwest Athletic Complex in the long term; in the short term continue as shared site for Dairy Farm and athletics use.
   c. Move Dairy herd teaching and research property south of Mortensen Road to Animal Science Cluster; include facility improvements at new site. In the long term relocate equine program from north campus barns and the Iden Farm. The move will require facility improvements.
   d. Retain university-owned land north of Mortensen Road and west of State Avenue for Plant Introduction Station operations in the short term and unspecified land use for the long term.
   e. Retain university-owned land south of Mortensen Road and west of State Avenue for Plant Introduction Station operations.
   f. The university should acquire, trade, or continue to manage the ISU Foundation’s Johannes Farm for Plant Introduction Station operations for the long term.
   g. Enable the ISU Foundation to dispose of the Johannes Farm (north of Mortensen Road) as desired.
   h. Retain university Swine Farm (old) north of Mortensen Road and west of State Avenue for Plant Introduction Station operations in the short term, and unspecified university expansion in the long term.
   i. Dispose of the Dairy Science/College Creek pasture after relocation of Dairy herd to new Dairy Farm in Animal Science Cluster.
   j. The university should acquire the ISU Foundation’s share of West Curtiss Farm.
   k. The university should acquire from the Foundation the southern most parcel of Johannes Farm bordering Highway 30 through purchase or trade.
   l. CAD should continue to retain the northern portion of the Milliken Farm, but sell the southern portion bordering Whorlie Creek within 5 years.
   m. The university should retain the northern portion of Curtiss Farm for plot use in the short term and Plant Introduction Station expansion in the long term.
   n. The university should dispose of the southern portion of the Curtiss Farm bordering Whorlie Creek within 5 years.
   o. Consider the relocation of ISU Press or compatibility with future new development.
   p. Retain East Curtiss Farm (east of State Street) in near future. Consider disposal in 10 to 15 years.
   q. Maintain the CAD Seed Plant facility, relocate in the long term.
B - HIGHWAY 30
CLUSTER

FACILITIES PLANNING AND MANAGEMENT
IOWA STATE UNIVERSITY
AMES, IA

DATE: 7-31-96
SCALE: NOT TO SCALE
SHEET NO. 2 OF 10

KEY
RETAIN
CHANGE IN USE
ISU/CAD ACQUIRE
ISU DISPOSE
CAD DISPOSE
ISUF DISPOSE
ISUF ACQUIRE
CITY OF AMES
CHANGE IN USE
C. Agronomy/Agricultural and Biosystems Engineering Cluster

1. Description (see map, page 12)
   a. Located 4 or more miles west of campus in Story and Boone counties.
   b. Consists of the following farms:
      1) Bruner Farm, 160 ac., ICSRA;
      2) Agronomy and Ag Engineering Farm, 411.3 ac., ISU;
      3) Burkey Farm, 154 ac., ISU;
      4) Boyd Farm, 76 ac., CAD;
      5) Sorensen Farm, 148.6 ac., CAD.

2. Program Activities
   These properties are used by researchers from Agronomy, Agricultural and Biosystems Engineering and National Soil Tilth Laboratory for soils, crop and agronomic research related to improved crop production and sustainable agricultural practices.

3. Issues/Management Recommendation
   Acquire land in proximity to Agronomy/Agricultural and Biosystems Engineering Cluster as becomes available to respond to projected needs in research.
D. Swine Nutrition Cluster

1. Description, (see map, page 14)
   a. Located approximately 4 miles northwest of campus in Boone County.
   b. Consists of the following farms:
      1) Lippert Farm, 210 ac., CAD.
      2) Kluver Farm, 188.3 ac., CAD.
      3) Kelley Farm, 216.9 ac., ISU.

2. Program Activities
   The Swine Nutrition Cluster houses swine research facilities and laboratories. Cropland surrounding the buildings provides for feed production and animal waste disposal and research.

3. Issues/Management Recommendation
   a. Make no changes.
   b. Consider acquisition of land to provide buffer between swine nutrition farm and private development to the east.
E. Ruminant Nutrition Cluster

1. Description, (see map, page 16)
   a. Located approximately 2 miles northwest of campus in Story County.
   b. Consists of the following farms:
      1) Ruminant Nutrition Farm, 300 ac., ISU;
      2) Finch Farm, 70 ac., ISU;
      3) Iden Farm, 122.5 ac., CAD;
      4) Ross Farm, 160 ac., CAD;
      5) Crossley Farm, 54 ac., CAD.

2. Program Activities
   The Ruminant Nutrition Cluster houses beef cattle research facilities and laboratories for nutrition research on cattle and sheep. Land surrounding the buildings provides isolation plots, foundation seed, feed production, forage crops, pasture, animal waste disposal and research.

3. Issues/Management Recommendation
   a. Evaluate wooded portion of farm sites along Onion Creek for disposal or trade with ISU Foundation in the near future (1 to 5 years).
   b. Maintain nutrition research facilities and land used for pasture, feed production and animal waste disposal for estimated period of 10 to 15 years.
   c. In the long term, relocate activities and consolidate on Animal Science Cluster south of Ames. Combine facility and herd relocation with possible relocation of Dairy Farm activities. Dispose of the Ruminant Nutrition Cluster in approximately 20 years.
   d. Make no new long term investments within this cluster.
   e. Ross, Iden and Crossley Farms are a low priority and could be available for trade or disposal earlier than 10 to 15 years if needed.
F. Applied Science Cluster

1. Description, (see map, page 18)
   a. Located approximately 1 mile northwest of campus.
   b. Consists of the following farms:
      1) Applied Science Farm, 242.7 ac., ISU;
      2) Moore Farm, 40 ac., City of Ames.

2. Program Activities
   The Applied Science Cluster serves as the site for the Applied Science Center and the
   Spangler Geotechnical Center. The cultivated land is utilized for research plots, bulk crop
   production, and forestry research plots. A portion of the site is woodland and used as an
   outdoor teaching laboratory by plant, animal and environmental science courses.

3. Issues/Management Recommendation
   a. Consider cooperation with City of Ames for future development of right-of-way access as
      community growth occurs.
   b. Retain all land as a buffer to the Applied Science Complex.
   c. Maintain wooded land north of the Applied Science Complex site as undeveloped.
   d. Consider disposal of the bottomland north of the wooded land and coordinate the future
      land use of the Moore Farm with City of Ames for recreational purposes.
G. Veterinary Medicine Cluster

1. Description, (see map, page 20)
   a. Located immediately north of the College of Veterinary Medicine and approximately 6 miles southeast of campus.
   b. Consists of the following farms:
      1) Beach Bottom Farm, 82.7 ac., ISU;
      2) Animal Resource Station, 137.3 ac., ISU;
      3) Bates Farm, 72.6 ac., ISU.

2. Program Activity
   The Veterinary Medicine Cluster is used to house teaching and research animals including the respiratory pathogen-free swine herd. Research projects in veterinary medicine, animal ecology and geology are currently in progress at the Animal Resource Station. The laboratory facility is used for continuing education courses and Theriogenology courses. Cropland on all three sites is used for animal waste disposal, feed production, and crop production to support animal operations.

3. Issues/Management Recommendations
   a. Develop approximately 40 acres of the Beach Bottom Farm into athletic and intramural fields, in response to student parking concerns. Identify other university farm land to crop for hay used by the College of Veterinary Medicine.
   b. In the long term, continue to manage the remaining land with no change pending. Review the potential of shared teaching and research facility development within the Animal Science Cluster. This would allow for shared operational management of feed mills and animal waste disposal facilities.
G — VETERINARY MEDICINE CLUSTER

FACILITIES PLANNING AND MANAGEMENT
IOWA STATE UNIVERSITY
AMES, IA

DATE: 7-31-96
SCALE: NOT TO SCALE
SHEET NO. 7 OF 10

KEY
- RETAIN
- CHANGE IN USE
- ISU/CAD ACQUIRE
- ISU DISPOSE
- CAD DISPOSE
- ISUF DISPOSE
- ISUF ACQUIRE
- CITY OF AMES
- CHANGE IN USE
H. Research Park Cluster

1. Description, (see map, page 22)
   a. Located approximately 1 mile south of campus along Elwood Drive.
   b. Consists of the ISU Research Park and ISU Foundation development properties, 90 ac., ISUF.

2. Program Activities
   The Research Park Cluster serves as the site for the ISU Research Park. Cropland is rented pending development expansion.

3. Issues/Management Recommendations
   Research Park desires to acquire remaining privately owned parcels within the larger land block.
H - RESEARCH PARK CLUSTER

FACILITIES PLANNING AND MANAGEMENT
IOWA STATE UNIVERSITY
AMES, IA

DATE: 7-31-96
SCALE: NOT TO SCALE
SHEET NO. 8 OF 10

KEY
- RETAIN
- CHANGE IN USE
- ISU/CAD ACQUIRE
- ISU DISPOSE
- CAD DISPOSE
- ISUF DISPOSE
- ISUF ACQUIRE
- CITY OF AMES
- CHANGE IN USE
I. Campus Horse Barns and Pastures

1. Description, (see map, page 24)
   a. Located on the northern edge of the core campus.
   b. Consists of the following:
      1) Horse Barns on Pammel Drive, 5 ac., ISU;
      2) Pasture south of 13th Street, 20 ac., ISU;
      3) Pasture north of 13th Street, 70 ac. ISU.

2. Program Activities
   The campus horse barns and pastures are used by the Animal Science Department as equine laboratories in support of classroom teaching and research. The pastures are used for forage crop production and grazing and are part of the Squaw Creek flood plain.

3. Issues/Management Recommendations
   a. Relocate the equine program to the Dairy Science Farm on Mortensen Road when the Dairy herd is relocated.
   b. Construct new facilities and modify existing facilities for the equine program as appropriate at the Mortensen Road Dairy Farm site.
   c. Consider alternative uses for Horse Barns on Pammel Drive.
   d. Consider sale or lease of 13th Street pastures for alternative recreation sites for the university, City of Ames and the Ames School District.
J. Uthe Farm Cluster

1. Description, (see map, page 26)
   a. Located approximately 10 miles southwest of campus.
   b. Consists of the following farms:
      1) Uthe Farm, 706 ac., CAD;
      2) Biltsland Memorial Farm, 256.5 ac., ISU;
      3) Sundberg Farm, 80 ac., ICSRA.

2. Program Activities
   The Biltsland/Sundberg Farms are the site of swine breeding research activities. The Uthe Farm is the proposed site for the swine research farm for the National Swine Research Center.

3. Issues/Management Recommendations
   a. Possible site for the National Swine Research Farm.
   b. Acquire remaining privately owned parcel within the larger land block.
   c. In the long term, retain land for long range unspecified needs in agriculture.
K. Miscellaneous Properties, within Ames Area

1. Description
   a. Single Farm sites located within 15 miles of Ames.
   b. Consists of the following:
      1) Horticulture Farm, 229 ac., ISU;
      2) Hinds Farm, 50 ac., ISU;
      3) Fick Observatory, 50 ac., ISU;
      4) 4-H Camp, ac., 4-H Foundation.

2. Program Activities
   The Horticulture Farm is the site of horticultural research activities. Hinds Farm is the site of irrigation research activities in support of several departments. Fick Observatory is the site of the university observatory. The 4-H Camp is the site used by the State 4-H for camp program activities.

3. Issues/Management Recommendations
   Make no changes.
Conclusion
Initially, a series of land-use plan goals were identified. This plan has varying degrees of success in achieving those goals. Each goal is restated and followed by comments responding to how the plan meets the goal.

Goal 1. Consolidate university land holdings to provide for efficient operations. This includes teaching, research, outreach and farm operations and management.
- Consider opportunities for consolidation of facilities between colleges of Agriculture and Veterinary Medicine.
- Maintain a travel distance of less than 15 minutes from the campus core to the teaching and research farm sites.

Comments: The university's goal to consolidate land holdings and provide for efficient operations is illustrated in the:
- development of a cluster concept for land management, which responds to program needs within a 15-minute travel distance from the campus core;
- consolidation of the Animal Science and Agronomy/Agricultural & Biosystems Engineering Clusters;
- relocation of the Dairy Science Farm, to be consolidated within the Animal Science cluster;
- disposal, in the long term, of the Ruminant Nutrition Cluster and relocation of Ruminant Nutrition research within the Animal Science Cluster;
- proposed study of potential for shared teaching and research facilities between the colleges of Agriculture and Veterinary Medicine.
- reallocation of Dairy Science Farm on Mortensen Road to equine program, which improves proximity of equine program to Animal Science Cluster.
- The plan identifies land within appropriate clusters for acquisition to respond to anticipated future program growth.

Goal 2. Relocate agriculture activity which is incompatible with urban growth of Ames community.

Comments: The goal to relocate activities which are incompatible with urban growth is demonstrated by the recommended disposal of 909 acres in the Ames area. These lands are in various ownership. The acreage is accounted for as follows:
- disposal of 202.5 acres in the Highway 30 Cluster;
- disposal in short term of 336.5 acres in Ruminant Cluster;
- disposal in long term of 370 acres in Ruminant Cluster;
- consider cooperation of right-of-way access for future development;
- change in land use of 80 acres to recreation in the Applied Science Cluster.
- The plan focuses on establishing a substantial land base to serve as a buffer between agricultural activity (especially Animal Science teaching and research) and urban growth.
Goal 3. Evaluate land needs as much as possible on the basis of program demands. Coordinate with university and college strategic planning activities.

Comments: This land-use plan lays the framework for decision making within a ‘land context’ in response to the strategic planning of the colleges for the next 29 years.

Goal 4. Identify strategies for land management which will allow the ISU Foundation the opportunity to meet its goals for land disposal.

Comments: The recommended land transactions will allow the ISU Foundation to meet its goals. Details of the transactions will be developed in the implementation plan, forthcoming.

Goal 5. Use funds generated from land disposal for land acquisition and facility relocation.

Comments: The details of the implementation plan are not fully developed.


Comments: The land holdings identified as retained for unspecified general university expansion total 422 acres within the Highway 30 and Applied Science Clusters. Additionally, approximately 160 acres is identified in flood-prone areas for restricted use, such as recreation.

Implementation Plan
The implementation phase of the Land-Use Plan will be developed following the property discussion and analysis. It is anticipated the implementation plan will consist of the proposed land transactions, financial implications, a timeline and sequence for the proposed land transactions.