Policy P-53
Effective Date: 10/24/2019

STATE AGRICULTURE DEVELOPMENT COMMITTEE
POLICY

Farmland Stewardship Deer Fencing Program

I. Purpose

To make Farmland Stewardship Program cost-share grants available for the installation of high-tensile woven wire deer fencing on farms enrolled in a permanent farmland preservation program as described herein.

II. Authority

N.J.S.A. 4:1C-11 et seq. – Agriculture Retention and Development Act
N.J.S.A. 13:8C-43 et seq. – Preserve New Jersey Act
N.J.S.A. 40:55D-39.1 – Municipal Land Use Law
N.J.S.A. 40:55D-113 et seq. – Burlington County Transfer of Development Rights Demonstration Act
N.J.S.A. 40:55D-137 et set. – State Transfer of Development Rights Act
N.J.A.C. 2:76-20.1 et seq. – Farmland Stewardship Program

III. Definitions

"Committee" means the State Agriculture Development Committee established pursuant to N.J.S.A. 4:1C-4.

“Commence” or “commence the implementation project” means purchasing a majority (greater than fifty percent) of the materials necessary to install a feasibility plan’s deer fencing project and providing the Committee with satisfactory written proof of purchase. If the deer fencing is to be installed by a contractor, “commence” means providing the Committee with copies of the signed contract and any required contract deposit.

“Common deed ownership” means the premises.

“Established farmer” means an owner-operator or immediate family member of the owner-operator of a family farm who actively participates in the operation and management of a farming operation, is a resident of the State of New Jersey, spends a substantial portion of time in carrying out a farming operation and planted a crop or acquired livestock or aquatic organisms which were on the farm at the time of the completion of the feasibility plan application. If the applicant is a cooperative, a corporation, a partnership or a joint operation, it must be primarily engaged in farming, that is, the applicant entity must derive over 50 percent of its gross income from all sources from its farming operation and its principle place of business shall be in New Jersey.

"Permanent farmland preservation program" means any permanent program as developed pursuant to the Agriculture Retention and Development Act, N.J.S.A. 4:1C-1 et seq., the Garden State Preservation Trust Act, P.L. 1999, c.180, N.J.S.A. 4:1C-43.1, N.J.S.A. 4:1C-31.1 and which has as its principal purpose the long term preservation of significant masses of reasonably contiguous agricultural land within the agricultural development areas adopted pursuant to N.J.S.A. 4:1C-11 et seq., P.L. 1983, c.32 and the maintenance and support of increased agricultural production as the first priority use of that land from which a permanent development easement has been acquired or retained for farmland preservation purposes and which land is eligible for the benefits of the farmland preservation program. Highlands preserved farmland, municipal cluster preserved farmland, pinelands preserved farmland, and TDR preserved farmland, as defined herein, are considered to be permanently preserved farmland enrolled in a farmland preservation program.

"Feasibility plan" means an application by established farmers for deer fencing implementation projects that are necessary and may feasibly result in enhancing the economic viability of the farm operation.

“Highlands preserved farmland” means land on which Highlands Development Credits (HDCs) allocated to the premises have been severed and deed restrictions recorded pursuant to N.J.S.A. 13:20-13 and N.J.A.C. 7:70-4.1 et seq., provided the SADC approves the recorded deed restrictions as being consistent with the deed restrictions at N.J.A.C. 2:76-6.15.

"Implementation projects" are projects recommended in approved feasibility plans that may feasibly result in enhancing the economic viability of the farm operation.

“Military veteran farmer” means an established farmer who served in the active military, naval, or air service anywhere in the world at any time since September 11, 2001, and discharged or released therefrom under conditions other than dishonorable at the time of application.

“Municipal cluster development preserved farmland” means land subject to an agricultural restriction approved by the SADC as part of a municipal cluster development pursuant to N.J.S.A. 40:55D-39.1.

“Pinelands preserved farmland” means land on which Pinelands Development Credits (PDCs) allocated to the premises have been severed and deed restrictions recorded pursuant to N.J.S.A. 13:18A-30, et seq. and N.J.A.C. 7:50-5.41 et seq., provided the SADC approves the recorded deed restrictions as being consistent with the deed restrictions at N.J.A.C. 2:76-6.15.

“Premises” means the property subject to the deed of easement as defined by the legal metes and bounds description contained in the deed of easement.

“Transfer of development rights (TDR) preserved farmland” means land enrolled in a municipal, county, or state farmland preservation program developed pursuant to N.J.S.A. 40:55D-113 et seq. or N.J.S.A. 40:55D-137 et seq., through which the land’s development credits are severed and agricultural deed restrictions recorded, and the SADC approves the deed restrictions as being consistent with the deed restrictions at N.J.A.C. 2:76-6.15.

IV. Eligibility for Cost-Share Grants

Applicants must meet the following criteria in order to become eligible for cost-share grants to install high-tensile woven-wire deer fencing:

a. Applicant must be an established farmer
b. The land on which the deer fencing is to be constructed is owned by the established farmer and is permanently preserved farmland enrolled in a Permanent Farmland Preservation Program approved by SADC.
c. Applicant must certify that she or he has watched the Committee's deer fence installation training video or participated in a Committee-approved deer fence installation training session.
d. Applicant must install deer fencing in accordance with the specifications prescribed in this policy document.
e. Applicant must have, or obtain prior to reimbursement, an approved farm conservation plan that addresses soil and water resources for the area to be fenced.

V. Policy Statement

With an estimated $5-10 million per year in crop losses due to deer densities that exceed in some instances more than ten times the land's carrying capacity, the use of fencing to exclude deer and protect a farmer's investment in crops is critical to a preserved farm's economic viability. Effectively precluding deer requires the installation of high-tensile woven wire fencing according to prescribed specifications (Exhibit A), which can be cost-prohibitive without any available cost-share. Offering cost-share for deer fencing is considered a "Stewardship activity" as defined in N.J.S.A. 13:8C-43 (the "Preserve New Jersey Act"), because such work is beyond routine operation and maintenance, and serves to improve lands that have been preserved for farmland preservation purposes under N.J.S.A. 4:1C-11, et seq. (the Agriculture Retention and Development Act). The installation of such deer fencing must be undertaken on preserved farmland in compliance with the Deed of Easement.

VI. Application Procedure

To be eligible for a Farmland Stewardship Program cost-share grant for deer fencing, an established farmer must submit a feasibility plan within a program round announced by the Committee that includes the following:

a. A map showing the proposed location of deer fencing, including all gates, corners, posts, and brace assemblies. The fenced area must be completely enclosed by deer fencing that meets the specifications outlined in Exhibit A.
b. An estimate of the linear feet of fence required.
c. An estimate of the acreage to be fenced.
d. A written cost quote for the implementation project, including the cost of materials and labor if the deer fencing will be installed by someone other than the established farmer, or including the cost of materials to be installed by the established farmer.
e. Crops currently grown within the area to be fenced.

f. Crops planned to be grown within the area to be fenced.
g. If available, the annual gross dollar loss from deer damage in the area to be fenced for the previous calendar year, as documented by crop insurance claims or other verifiable documents provided by the established farmer.
h. A description of hunting or other deer abatement measures, such as DEP depredation permits, that have been used for the land to be fenced.
i. Documentation of applicant's status as a military veteran farmer, if applicable.
j. Documentation that applicant meets the definition of an established farmer.
k. Documentation that applicant has an approved farm conservation plan, or that applicant has requested a farm conservation plan from NRCS or an approved technical service provider, for the area to be fenced.
l. Documentation (if applicant proposes to fence at least five acres of woodland for woodland management purposes) that applicant has a signed Woodland Management Plan or Forest Stewardship Plan with deer fencing as a recommended management practice, or that applicant has requested such a Woodland Management Plan or Forest Stewardship plan, from a forester approved pursuant to N.J.A.C. 7:3-2.
m. A copy of the recorded preservation deed of easement or deed restrictions on the land on which the deer fencing is to be constructed.
n. The applicant's NJSTART Vendor ID# and NJSTART Entity Name.

VII. Feasibility Plan Determination

The Committee will make grants available for implementation projects subject to available funding. The Committee will undertake an analysis of each feasibility plan to determine if the proposed projects are feasible. Only approved feasibility plans will become eligible for funding as implementation projects. The Committee will approve feasibility plans based on the following criteria:

a. A demonstrated need for deer fencing as demonstrated by the deer density within the deer management unit and/or deer management zone(s) where the established farmer proposes installing fencing, whether the area is in a no firearm discharge zone, whether the farmer has obtained NJDEP depredation permits, whether the premises is open to hunting, and whether parcels within 200 feet in all directions of the premises are included within state, county, municipal, or non-profit open space where hunting is prohibited.
b. A demonstrated need for deer fencing as demonstrated by the type of crops grown or planned to be grown in the area to be fenced. No implementation projects will be approved for fencing farmstead complexes unless said complexes contain cropland, pastureland, or woodland. Applicants who propose to fence at least five acres of woodland for woodland management purposes must have a signed Woodland Management Plan or Forest Stewardship Plan with deer fencing as a recommended management practice by the completion of the implementation project.
c. The proposal's compliance with the deed of easement, including, but not limited to, Paragraph 7 (natural resources conservation) and all other applicable laws, rules, and regulations.

VIII. Approval of Implementation Projects

The SADC, will grant approval to all projects on a rolling basis in the order in which feasibility plan applications are received, until funding is exhausted. In the event multiple approved feasibility plan applications are received on the same day, and funding is insufficient to fund the feasibility plans' implementation projects, the implementation projects will be ranked in accordance with Section IX. In all cases, any fencing installed before funding is awarded will be ineligible for reimbursement.

IX. Ranking of Applications

Implementation projects will be ranked by means of a numeric rating scale as shown in Exhibit B and funding will be expended for a given program round by rank order (highest to lowest) until available funding has been exhausted. The numeric rating scale shall incorporate the following criteria:

a. Deer density per square mile.
b. Type of crop currently grown or planned to be grown.
c. Status of firearm discharge zones (whether land is located in no discharge zone or not).
d. Proximity (within 200 feet in all directions of the premises) to state, county, municipal, or non-profit open space where hunting is prohibited.
e. Status of hunting access (whether premises is actively hunted).
f. Status of deer depredation permits (whether applicant has obtained them or not).
g. Whether owner-operator is a military veteran farmer.

In the event of a tie score between applications, applications will be prioritized according to the earliest date submitted during a given program round. In the further event of a tie, an established farmer may submit documentation of the extent of crop damage from deer and associated annual gross dollar loss for the previous calendar year along with a letter of support from Rutgers Cooperative Extension, or alternatively, submit evidence of a crop insurance claim.

X. Reimbursement Procedure

The SADC will provide a cost-share grant in the form of a reimbursement to the established farmer for the installed deer fencing, as set forth below, only after the implementation project has been completed and all requirements have been satisfied in the reasonable discretion of the SADC:

a. An established farmer must certify that she or he has watched the SADC's deer fence installation training video or participated in a Committee-approved deer fencing installation training session prior to installing the fence.
b. The fencing must be installed in compliance with the attached design and installation specifications (Exhibit A), which includes fence, gate, corner, post, brace assembly, and other component minimum design and installation specifications. Any established farmer wishing to deviate from these specifications must seek and obtain approval from the SADC, in writing, prior to installing the fence.
c. The fencing must be installed in compliance with the time-period set forth in N.J.A.C. 2:76-20.18(a), namely, the established farmer must commence the implementation

project within six months of approval by the Committee and be completed within three years of said approval.

d. All approved projects shall be implemented and maintained at all times in conformance with the restrictions set forth in the Deed of Easement and for a lifespan of at least 10 years.
e. An established farmer must have an approved conservation plan that addresses soil and water resources for the area to be fenced.
f. Upon completion of the project, the established farmer shall request payment on a form authorized by the SADC. The SADC shall verify the submitted documentation and that the deer fencing has been installed satisfactorily in accordance with the design and installation specifications (Exhibit A), the Deed of Easement, this Policy, and all other applicable laws, rules and regulations. If all program requirements are met, the SADC shall forward payment of the grant to the established farmer.

XI. Reimbursement Amounts and Conditions

The grant amounts available to established farmers will be up to 50% of the verified reasonable costs of materials and installation based on the submittal of invoices and field inspection, as determined by the SADC. In-kind services performed by the applicant or applicant's employees (such as labor) shall be permitted to be used as the applicant's matching portion of costs for an implementation project. Grants will be based on common deed ownership and shall not exceed $200.00 per acre or a total grant amount of $20,000. The premises shall not be eligible for additional Farmland Stewardship Deer Fencing Program cost-share grants for a period of at least eight years from the date of completion of a previously approved deer fencing implementation project. The cost-share of installed fencing not retained for the requisite 10-year lifespan will be recaptured on a pro-rated basis, rounded to the closest month, determined through annual monitoring visits to the Premises.

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State Agriculture Development Committee (SADC)
Policy P-53: Farmland Stewardship Deer Fencing Program

Exhibit A:
High-Tensile Woven Wire Deer Fencing
Design and Installation Specifications

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Introduction

The specifications included in Exhibit A must be followed at a minimum for the effective implementation of exclusionary deer fence. Farmers wishing to deviate from the specifications must seek and get approval from the SADC in writing, in advance, prior to installation.

General Requirements

- All fence materials must be new and in unused condition.
- The minimum fence height is 96 inches (8 feet).
- Two fence systems are permitted:
  - System using full 96-inch high-tensile fixed-knot woven wire.
  - System using 75 to 96-inch high-tensile fixed-knot woven wire, with high-tensile wires spaced a maximum of 9 inches apart to reach the full 96-inch height.

Additional Landowner Responsibilities

Landowners must:

- Obtain all applicable permits and comply with all permit conditions.
- Act as General Contractor to obtain the services of all subcontractors required to perform the works of improvement.
- Contact the NJ One Call system at 1-800-272-1000 three to ten days prior to any construction activity to verify the location of any buried utilities. (The protection of private utilities is the responsibility of landowner.)
- Seek and get prior approval from the SADC, in writing, for any deviations from the design and installation specifications in Policy P-53, Exhibit A.
  Landowners can contact the SADC at:

  PO Box 330, Trenton NJ, 08625
  sadc@ag.nj.gov
  Fax: (609) 984-2504
  Ph: (609) 984-2504

Fence Materials and Specifications

- High-Tensile Woven Wire Fence and High-Tensile Wire
  - All wire must be high-tensile 12.5-gauge steel class 3 galvanized or greater.
  - High-tensile woven wire shall be fixed-knot.
  - The horizontal wires of a high-tensile woven wire fence shall have graduated spacing from 3 to 8 inches, with the smaller spacing placed nearest the ground. Vertical wires shall have a maximum spacing of 6 inches apart.
  - High-tensile woven wire shall be a minimum height of 75 inches. This minimum height must be achieved using a single roll of wire. Additional strands of high-tensile wire then must be added on top, at a maximum of 9-inch intervals, until reaching the full height, 96 inches.
  - All high-tensile woven wire and high-tensile wire shall be attached to the outside of the posts where practical. In all cases, it shall be attached to the outside of corners.
- Posts
  - Post shall be preservative pressure treated such as CCA 0.40 lbs., e.g., Southern Yellow Pine or equivalent. Do not use Red Pine. Posts shall be well-seasoned or kiln-dried to minimize warping. Well-seasoned means cut, debarked, and dried for a minimum of 1 year.
  - Alternatively, untreated posts also may be used, provided they are well seasoned, durable posts of species such as red cedar, black locust or Osage orange with the bark removed. Well-seasoned means cut, debarked, and dried for a minimum of 1 year.
  - Posts shall be a minimum of 12 feet long.
  - Line posts shall be a minimum 4”x4” or 4” round, installed at least 36 inches in the ground.
  - Brace posts shall be a minimum 5”x5” or 5” round, installed at least 36 inches in the ground.
  - Corner and end posts shall be a minimum of 6”x6” or 6” round, installed at least 42 inches in the ground.
  - Post spacing shall be 25 feet or less. See page 12 regarding post spacing along curves.
  - Posts may be pounded or augured. When augured, posts must be anchored on corners, ends, and low points. See page 12 regarding setting posts in the ground.
- Fasteners
  - 1 3/4” barbed, class 3 galvanized steel staples shall be used.

Brace Assemblies

Locating Braces Assemblies at Corners, Ends, Gate Posts, and Mid-Line (Line)

Length of Straight Run of Fence between Corner, End, Gate Posts, and/or Line Brace	**Type of Brace Assembly needed at Corner, End, and/or Gate posts**	**Line Brace Assemblies: Whether they are required, and if so, at what Intervals in a straight run of fence**
Less than 700 feet	Single-Span Brace	Line braces are not required at fixed intervals for this run of fence. Use line braces as needed at top and bottom of hills.
700 to 1,300 feet	Double-Span Brace	Line braces are not required at fixed intervals for this run of fence. Use line braces as needed at top and bottom of hills.
More than 1,300 feet	Depends on the spacing of line braces used in the run of fence: • Use a single-span brace if the distance to the line brace is less than 700 feet. • Use a double-span brace if the distance to the line brace is 700 to 1,300 feet.	Line braces are required: • Use at least one line brace (double -span) every 1,300 feet in the run of fence, and as needed on the tops and bottoms of hills.

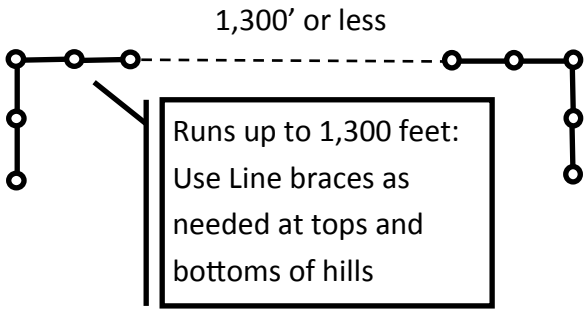
Note: A ***run*** is the distance between a corner, end, gate, or brace post and the next corner, end, gate, or brace post.

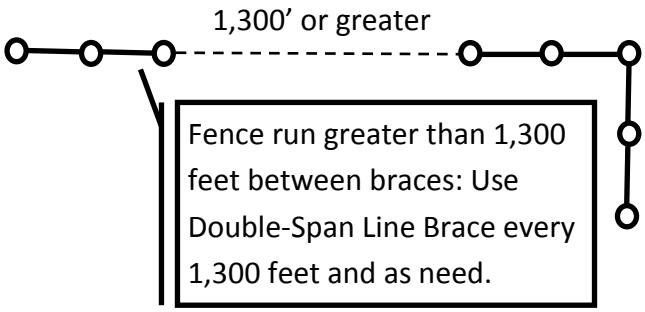
Brace Assembly Length

Single-span brace assemblies shall be a minimum of 10 feet long. Double-span brace assemblies shall be a minimum of 16 feet long.

Brace Assembly Placement in Line

Line brace assemblies shall be installed at appropriate intervals in a run of fence and at all sharp breaks in grade, typically when the change in slope is greater than 15%.

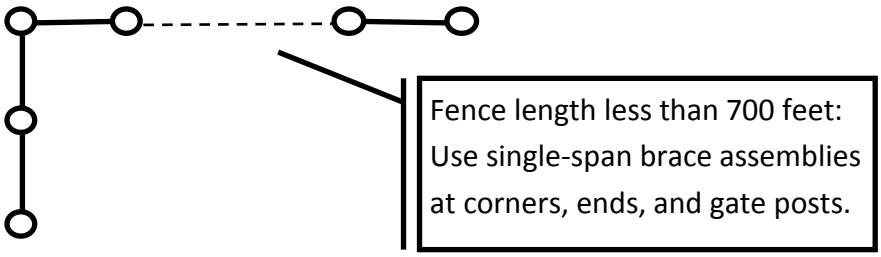


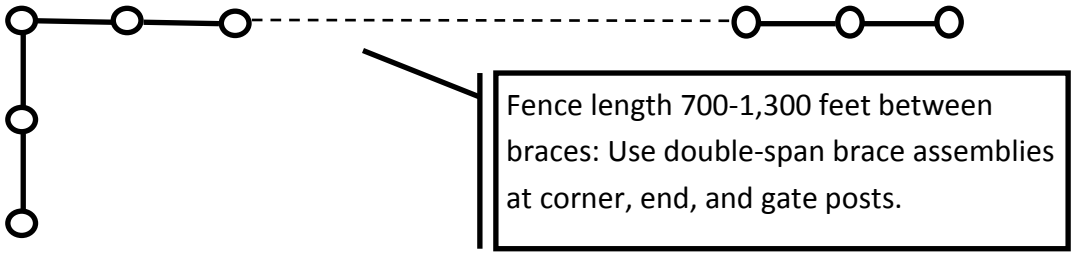


Brace Assembly Placement at Corners, Ends, and Gates

Single-span or double-span brace assemblies are required at all corners, ends, and gates, and where the fence alignment changes direction by more than 40 degrees.

If a wide stream or gully is to be crossed, the fence section shall be terminated on one bank with a brace assembly, and a new section with a brace assembly shall be started on the other bank.





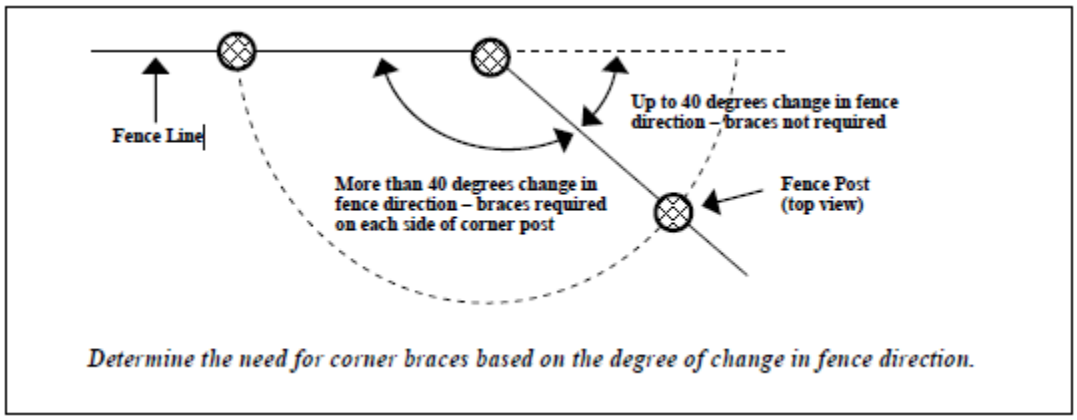


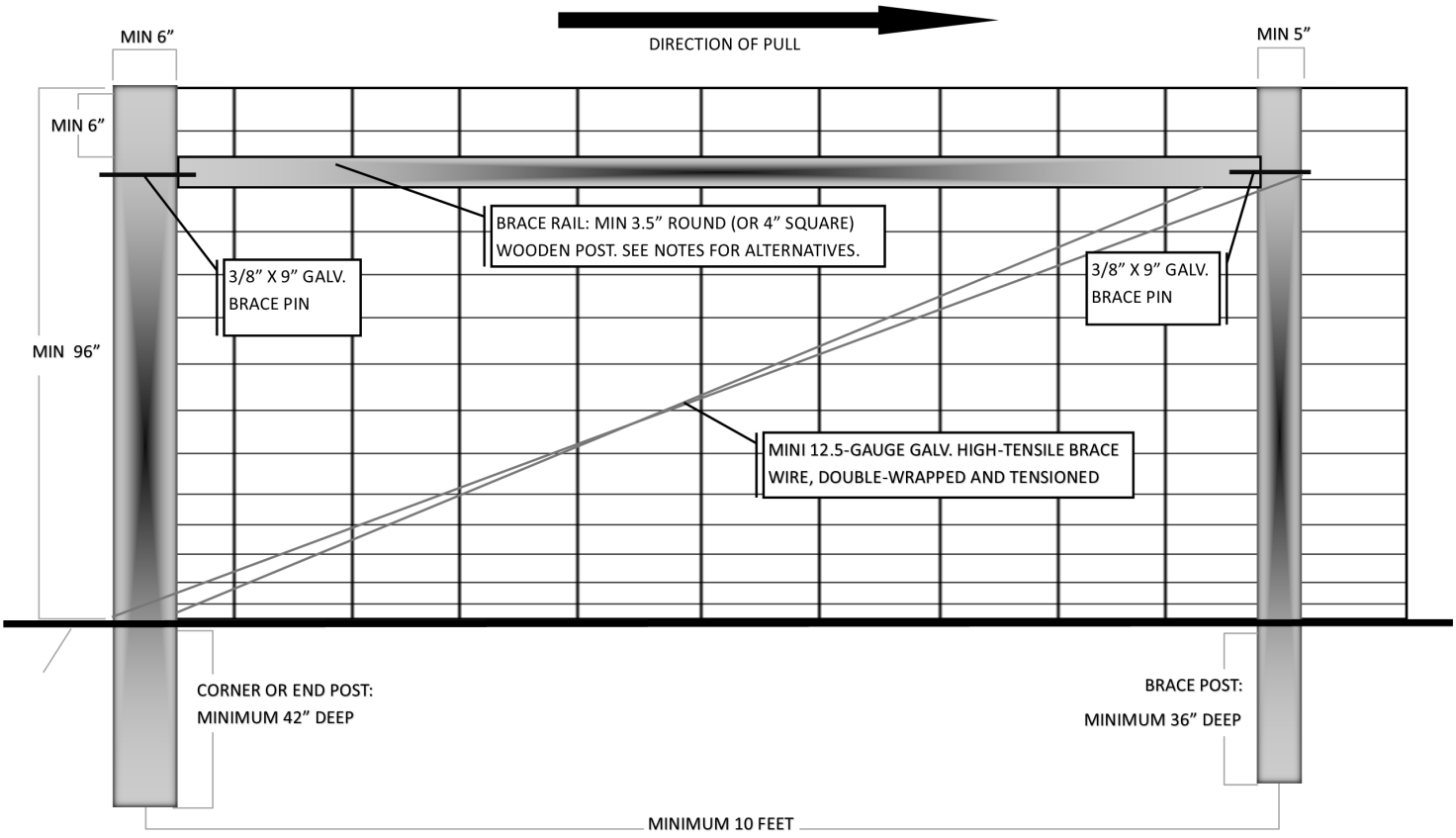
Diagram courtesy of NRCS

Brace Assembly Components

- Horizontal Brace Rails shall be wooden posts a minimum of 4”x 4” square or 3 1/2-inch diameter round. One alternative is to use galvanized steel pipe with a minimum 2-inch diameter and with the minimum wall thickness as specified for a water supply pipe.
- Brace post pins shall be steel rods a minimum of 3/8-inch x 9-inch.
- Brace wires shall consist of 12½ gauge or stronger, galvanized, high-tensile wire, double wrapped with a 1½-inch x 2-inch x 2-foot twist stick. A double wire with a tightener also may be used. Brace wires shall be tightened to secure the brace and post assemblies. Other commercially available tension systems may be used with prior SADC approval.

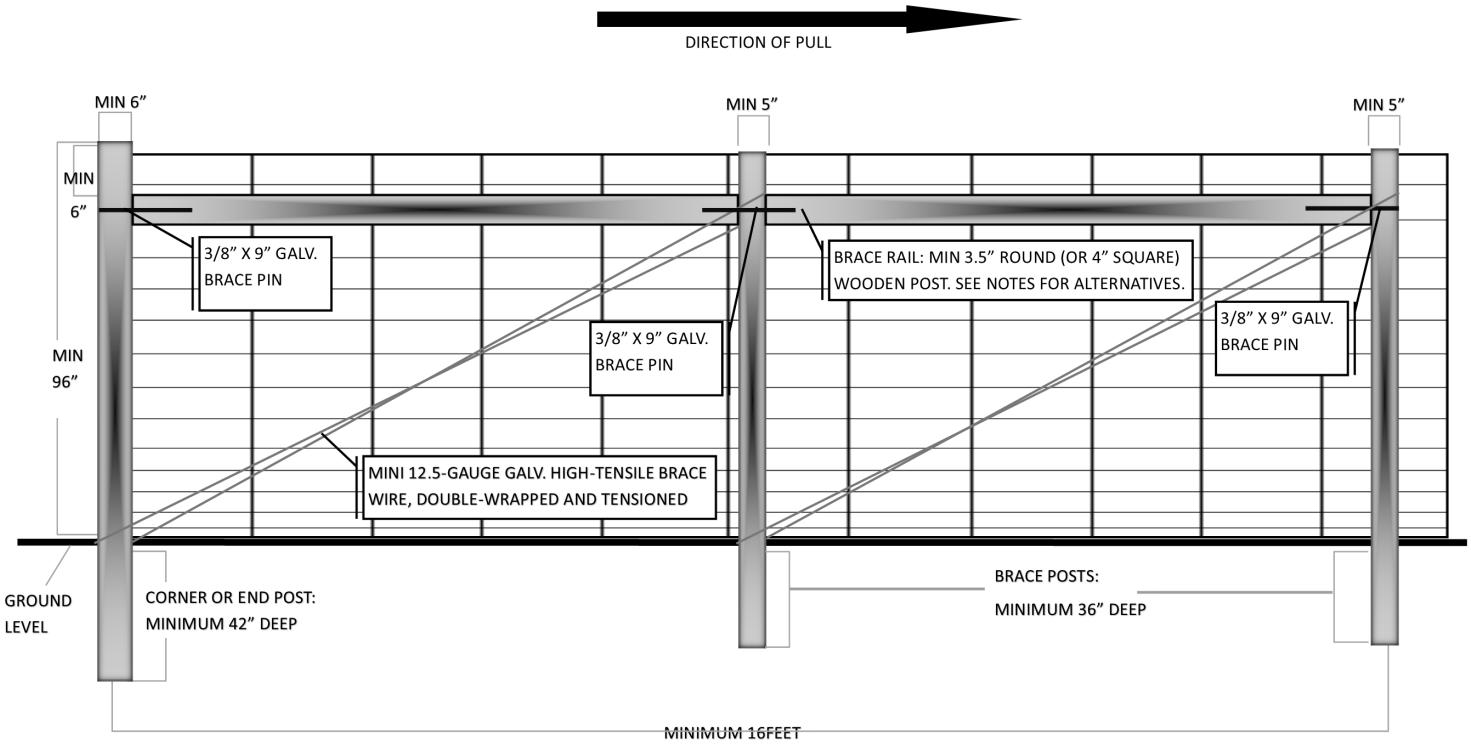
Typical Single-Span Brace Assembly at a Corner or End

- Used when the run of fence is less than 700 feet



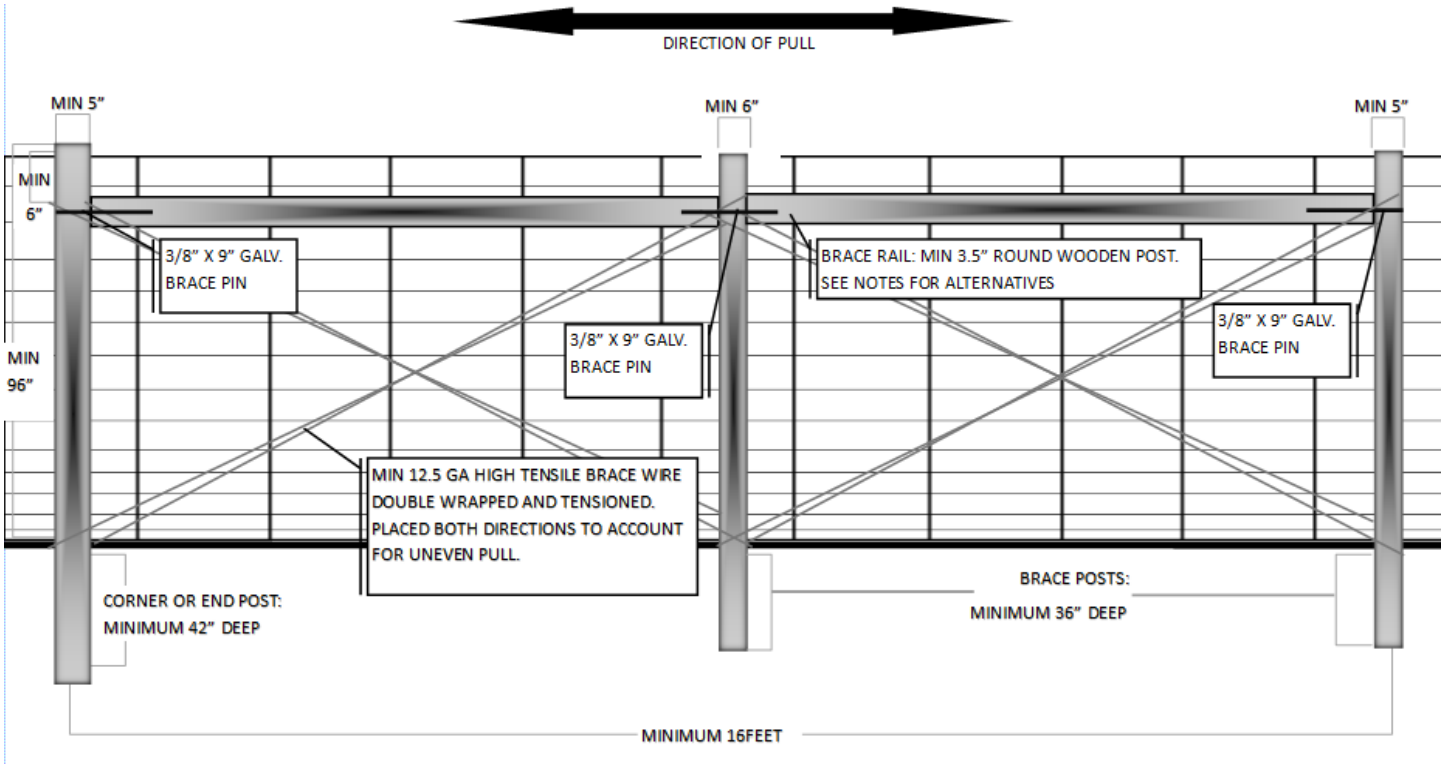
Typical Double Span Brace Assembly at a Corner or End

- Used when the run of fence is greater than 700 feet



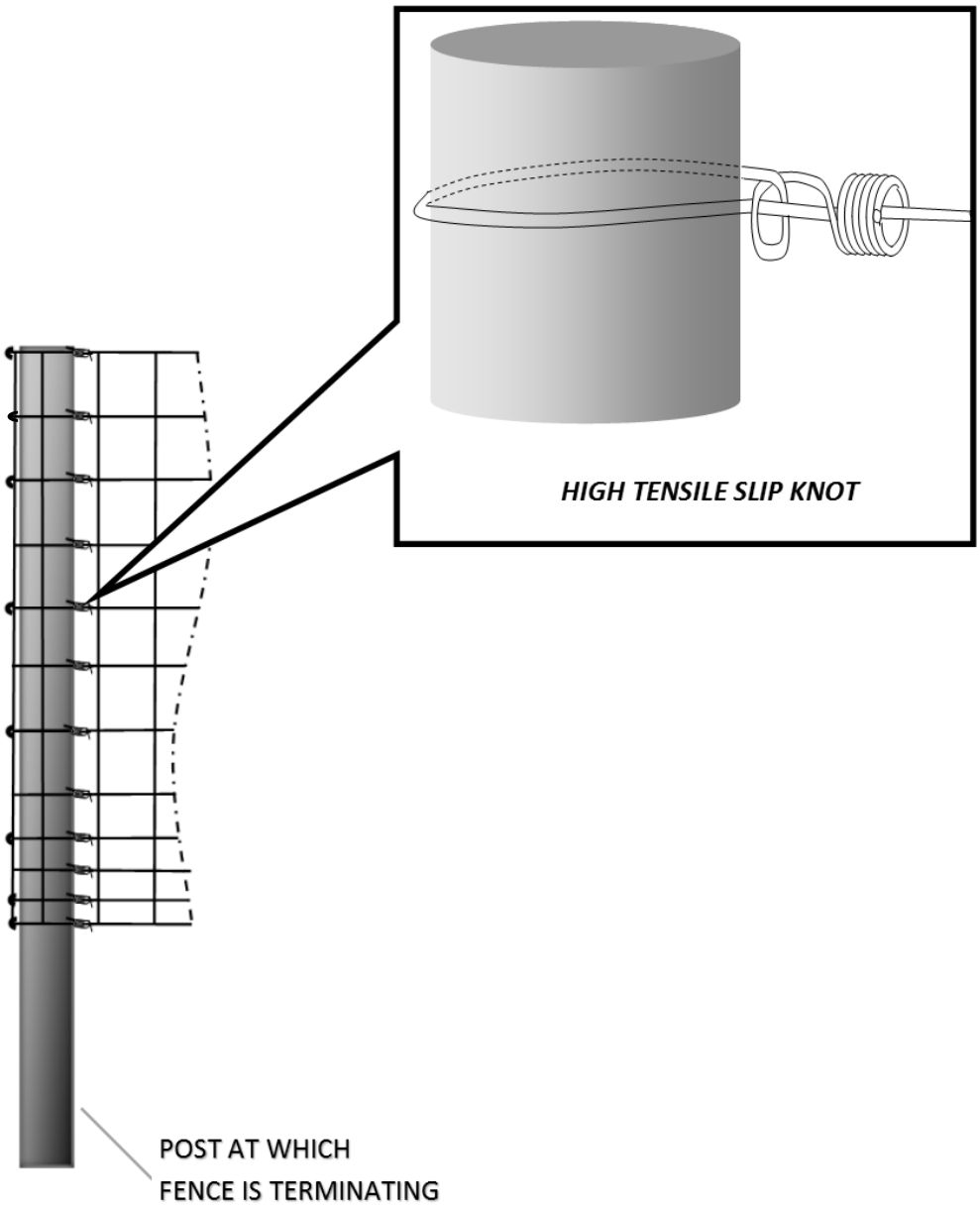
Typical Line Brace Assembly

- Used when the run of fence is greater than 1,300 feet, or otherwise as needed



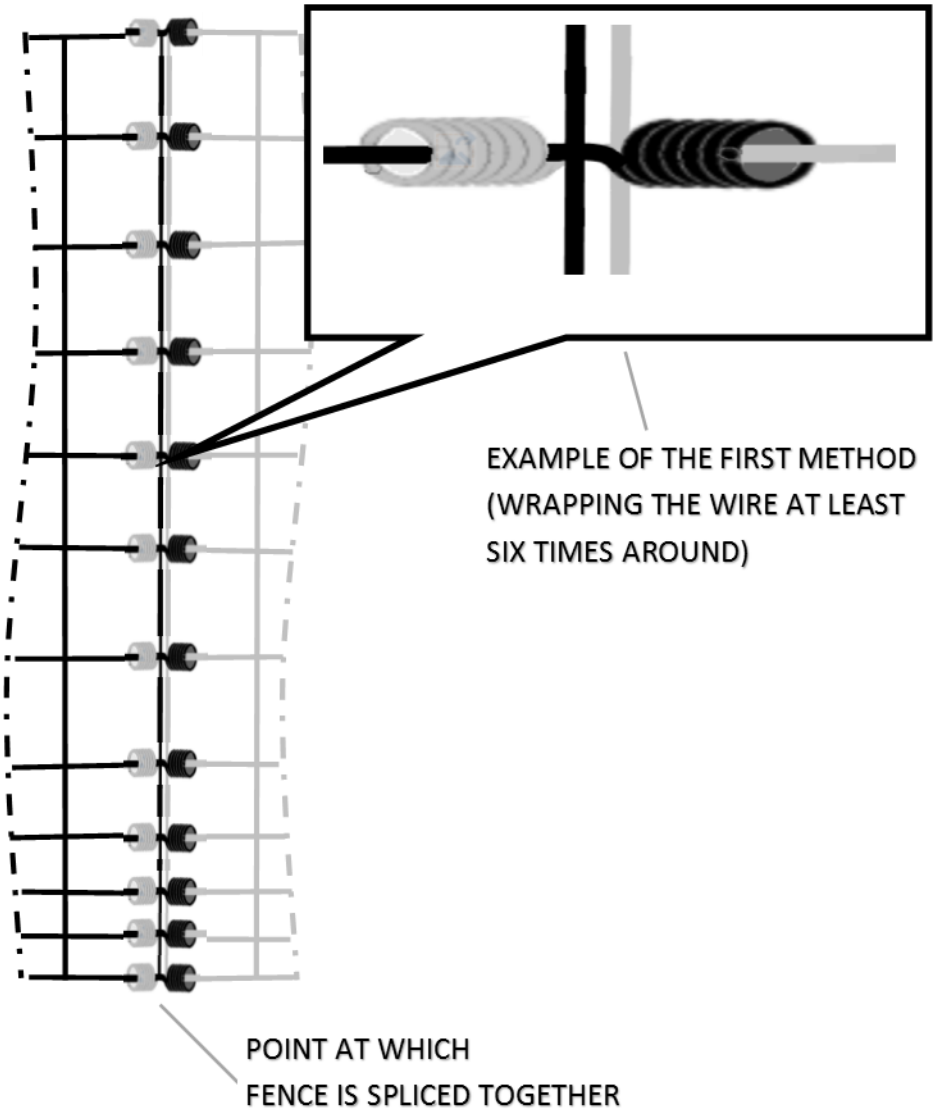
Terminating a Fence

- When fence is terminated at a post, it shall be terminated using one of the following methods:
  - High-tensile slip knot;
  - Crimp sleeves rated for the appropriate gauge wire according to manufacturers instructions; or
  - Any other commercially available termination device, rated for the appropriate gauge wire according to manufacturers instructions.



Splicing a Fence

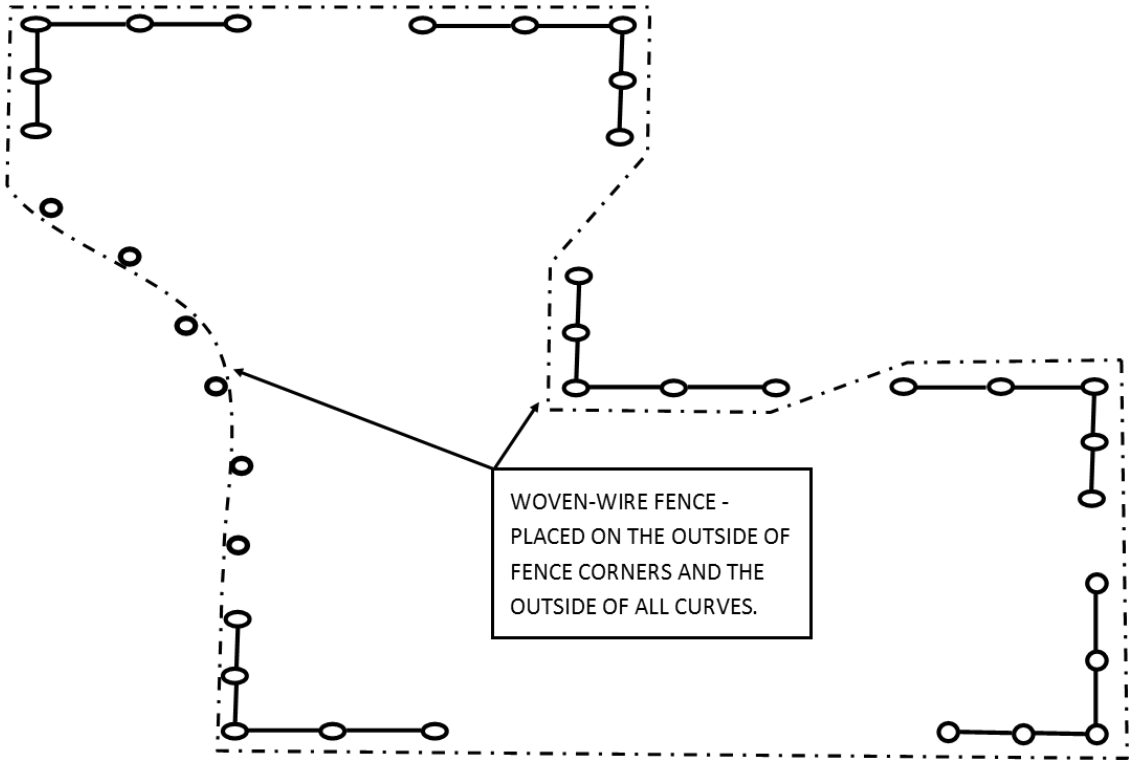
- When it is necessary to splice two sections of fence together, one of the following methods shall be used:
  - Place each fence's vertical stays over each other and wrap the loose horizontal ends of the wires around the corresponding horizontal wire not less than 6 times around;
  - Apply crimp sleeves rated for the appropriate gauge wire according to manufacturers instructions; or
  - Employ any other commercially-available splicing device rated for the appropriate gauge wire according to manufacturers instructions.



Woven Wire Fence Placement

Woven wire fencing shall be placed on the outside of all corners, brace assemblies, and curves. When tensioned, the wire fencing should pull against the post, not the staples. **All fencing shall be sufficiently tensioned using commercially available methods. Tightening by hand is not acceptable**.

In all other areas, fence should be stapled on the side of the posts that will experience the most deer pressure. This side is typically the outer (non-cropped) side of the post. Exceptions may be made when site conditions make placement on the outside of the post impractical.



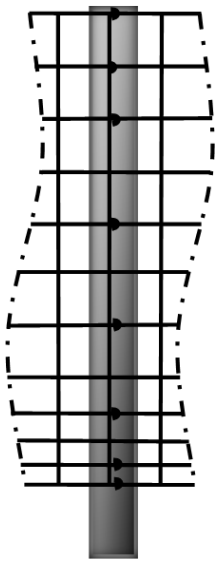
Fastening Woven Wire Fence to Posts

Staples shall be used to fasten woven wire fence to posts. The bottom two and top two horizontal wires shall be stapled to each post, and every other horizontal wire in between shall be stapled to each post.

If a fence includes single-strand high-tensile wires above the woven wire portion of the fence, the single strand high-tensile wires shall be stapled to each post.

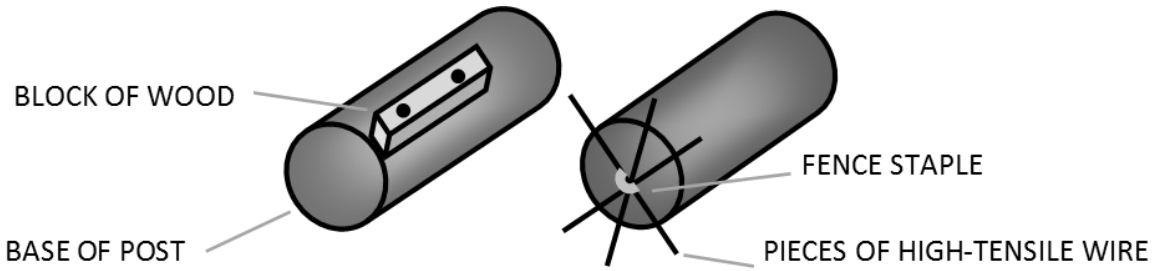
Wire should be held in place by the staple, but the staple should allow the wire to move back and forth freely.

When driving staples, rotate the flat face of the staples 30-45 degrees from the flat face of the post to prevent splitting.



Setting Posts in the Ground

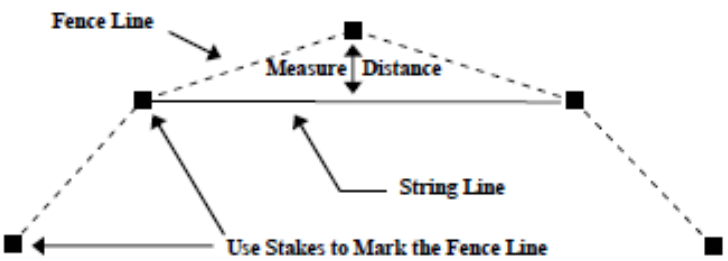
Posts may be pounded or augured. When augured, posts must be anchored at corners, ends, and low points. The following are two ways to anchor and set a post: 1) Attach a wood block near the bottom of the post (block system); or 2) Attach pieces of high-tensile wire and a fence staple at the bottom (spider system).



Line Post Spacing on Curves

The spacing of line posts on curves is determined by the sharpness of the curve. Refer to the diagram below to determine the correct spacing.

Fence alignments that change direction by less than 40 degrees are considered curves.
Fence alignments that change direction by more than 40 degrees are considered corners.



Distance from Center Stake to String *Inches*	Maximum Spacing Btw. Line Posts *Feet*
7 or less	12
8 to 14	10
15 to 20	8

Determine line post spacing on curves based on the sharpness of the curve.

Diagram courtesy of NRCS

Deer Fence Installation Training Video

To be eligible for SADC Farmland Stewardship Deer Fencing Program grants, applicants must watch the SADC Deer Fence Installation Training Video or participate in an SADC-approved deer fence installation training session. The video is available here: https://youtu.be/Oko0ObsIHSg.

Source Notes

The specifications in Exhibit A are derived from the following sources:

- High-tensile Woven Wire Fences for Reducing Wildlife Damage – FS889 – Rutgers University, March 2010.
- Deer Fence Bid Specifications – NJ Department of Agriculture, Division of Agriculture and Natural Resources, November 2004.
- Fence Technical Reference (382) – NJ-NRCS, November 2014.
- NJ Deer Exclusion Fence Installation and Removal Guidance for (382) Fence – NJ-NRCS October 2015.
- SADC Farmland Stewardship Deer Fencing Program Training on Proper Installation and Maintenance, July 2017. https://youtu.be/Oko0ObsIHSg.

Where discrepancies exisit between these sources and Exhibit A, the standards set forth in Exhibit A shall apply.

Exhibit B
State Agriculture Development Committee
Farmland Stewardship Deer Fencing Program
Numeric Rating Scale Ranking Criteria
Policy P-53

CRITERIA	QUALIFIER	POINTS	FEASIBILITY PLAN SCORE
Deer Density Per Sq. Mi.	Greater than 45 Deer Per Sq. Mi.	25	
	30 - 45 Deer Per Sq. Mi.	15	
	15 - 30 Deer Per Sq. Mi.	10	
	Less than 15 Deer Per Sq. Mi.	0	
Crop Type to be Fenced	Fruit, Vegetable, and Nursery	25	
	Grain and Forages	15	
	Woodland	10	
	Farmstead Complex	0	
Premises Located in No Firearm Discharge Zone	Yes	10	
	No	0	
Premises Located Within 200 Feet of Public Open Space with No Hunting	Yes	10	
	No	0	
Premises Open to Hunting	Yes	10	
	No	0	
DEP Depredation Permit for Premises	Yes	10	
	No	0	
Military Veteran Farmer	Yes	10	
	No	0	
Total		100	