Policy P-53
Effective Date: 1/25/24

STATE AGRICULTURE DEVELOPMENT COMMITTEE
POLICY

Farmland Stewardship Wildlife Fencing Program

I. Purpose

To make Farmland Stewardship Program cost-share grants available for the installation of wildlife fencing (high-tensile woven wire deer fencing, electric bear fencing, or other 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
P.L.2023, c.233

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 wildlife fencing project and providing the Committee with satisfactory written proof of purchase. If the wildlife 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.

“Eligible applicant” means an owner, operator, or lessee of permanently preserved farmland who regularly engages in the operation and management of the farming operation on the preserved farmland, provided that an applicant who is an operator or lessee has written approval to install wildlife fencing from the owner of the land on which the wildlife fencing is to be installed.

"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.

“Electric bear fencing” or “bear fencing” means bear fencing constructed pursuant to the design and installation specifications prescribed in Exhibit B.

"Feasibility plan" means an application by an eligible applicant for wildlife 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.

“High-tensile woven wire deer fencing” or “deer fencing” means deer fencing constructed pursuant to the design and installation specifications prescribed in Exhibit A.

"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 eligible applicant 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.

“Other wildlife fencing” means fencing that effectively precludes species of wildlife other than deer and bear, and is constructed pursuant to generally accepted design and installation specifications approved by the Committee.

“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.

"Wildlife fencing" means deer fencing, bear fencing, or other wildlife fencing as defined herein.

IV. Eligibility for Cost-Share Grants

Applicants must meet the following criteria in order to become eligible for cost-share grants to install wildlife fencing:

a. Applicant must be an eligible applicant as defined herein.
b. The land on which the fencing is to be constructed is permanently preserved farmland enrolled in a Permanent Farmland Preservation Program approved by the SADC.
c. If deer fencing is to be installed, 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 wildlife 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, with additional damage and crop losses due to the expanded presence of bears, and with crop losses from other wildlife, the use of fencing to exclude deer, bear, and/or other wildlife and protect a farmer's investment in agricultural production 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), and effectively precluding bears requires the installation of electric fencing according to prescribed specifications (Exhibit B). Wildlife fencing can be cost-prohibitive without any available cost-share. Offering cost-share for wildlife 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 wildlife 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 wildlife fencing, an eligible applicant 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 wildlife fencing, including all gates, corners, posts, and brace assemblies. The fenced area must be completely enclosed by fencing that meets the specifications prescribed in this policy document.
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 whether the fencing will be installed by the eligible applicant or someone other than the eligible applicant.
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, bear, or other wildlife 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 eligible applicant.
h. A description of hunting or other deer, bear, or other wildlife abatement measures, such as DEP deer depredation permits or farmer black bear season permit, 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 eligible applicant.
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 wildlife 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 wildlife fencing is to be constructed.
n. The applicant's NJSTART Vendor ID# and NJSTART Entity Name.
o. Proposed fencing design standards, if the applicant is proposing the installation of other wildlife fencing.

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 need for wildlife fencing as demonstrated by the deer density within the deer management unit and/or deer management zone(s) where the eligible applicant proposes installing deer fencing, the presence of black bear in the area where the eligible applicant proposes installing bear fencing, the presence of other wildlife contributing to crop losses where fencing is proposed, whether the area is in a no firearm discharge zone, whether the farmer has obtained NJDEP deer depredation permits or farmer black bear season 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 need for wildlife 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 wildlife 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 C 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. Presence of black bears.
c. Type of crop currently grown or planned to be grown.
d. Status of firearm discharge zones (whether land is located in no discharge zone or not).
e. Proximity (within 200 feet in all directions of the premises) to state, county, municipal, or non-profit open space where hunting is prohibited.
f. Status of hunting access (whether premises is actively hunted).
g. Status of deer depredation permits or farmer black bear season permits (whether applicant has obtained them or not).
h. 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 eligible applicant may submit documentation of the extent of crop damage from wildlife 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 eligible applicant for the installed wildlife 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. If deer fencing was installed, an eligible applicant 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. Deer 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. Bear fencing must be installed in compliance with the attached design and installation specifications (Exhibit B). Any eligible applicant wishing to deviate from these specifications must seek and obtain approval from the SADC, in writing, prior to installing the fence.
c. Fencing for effectively precluding other wildlife must be installed in compliance with generally accepted design and installation specifications approved by the Committee.
d. 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 eligible applicant must commence the implementation project within six months of approval by the Committee and be completed within three years of said approval.
e. 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.
f. An eligible applicant must have an approved conservation plan that addresses soil and water resources for the area to be fenced.
g. Upon completion of the project, the eligible applicant shall request payment on a form authorized by the SADC. The SADC shall verify the submitted documentation and that the wildlife fencing has been installed satisfactorily in accordance with the design and installation specifications prescribed in this policy document, 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 eligible applicant.

XI. Reimbursement Amounts and Conditions

The grant amounts available to eligible applicants 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, not to exceed $50,000. 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. Each individual permanently preserved farm (each premises) shall

not be eligible for more than $50,000 in Farmland Stewardship Wildlife Fencing Program cost-share grants per eight-year period, with the period beginning on the date of completion of the first approved wildlife fencing implementation project. Once a farm has received its maximum eligibility amount, it shall not be eligible to apply for additional wildlife fencing cost-share grants until the next eight-year period. 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.

State Agriculture Development Committee (SADC)

Policy P-53: Farmland Stewardship Wildlife Fencing Program

Exhibit A:

High-Tensile Woven Wire Deer Fencing Design and Installation Specifications

Table of Contents

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.

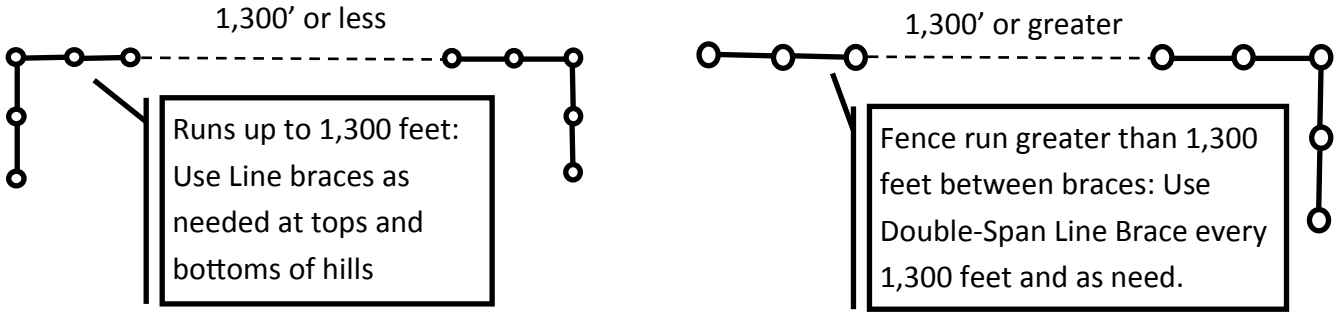
Note: A ***run*** is the distance between a corner, end, gate, or brace post and the next corner, end, gate, or brace post.

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

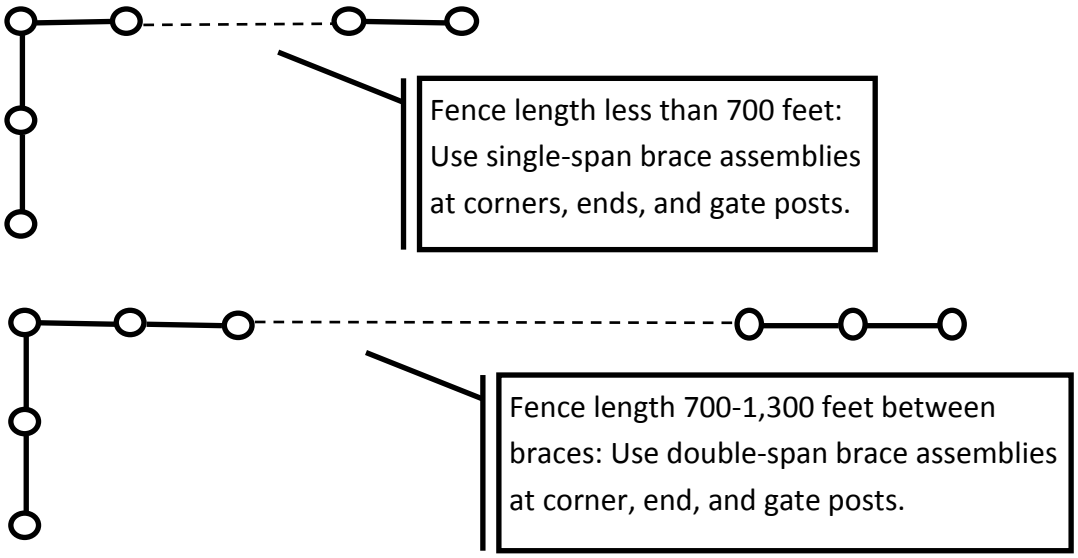
Line brace assemblies shall be installed at appropriate intervals in a run of fence and at all sharp breaks in grade, typically when the change in slope is greater than 15%.



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.



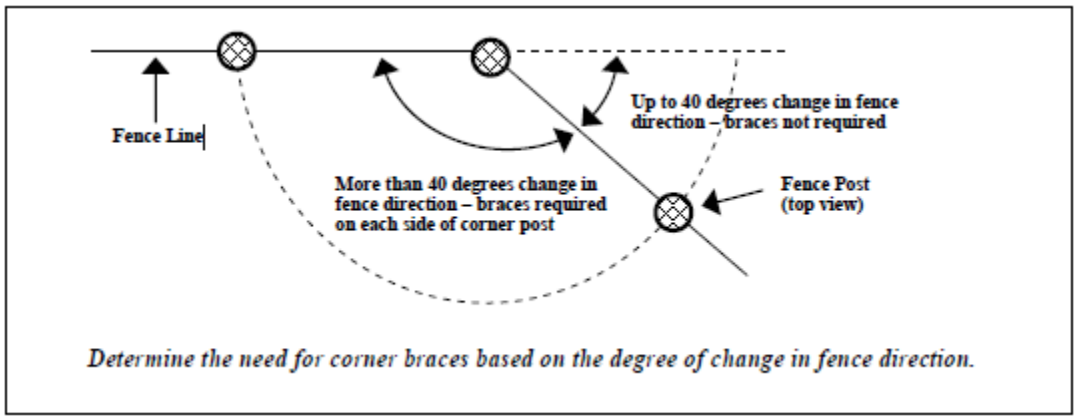


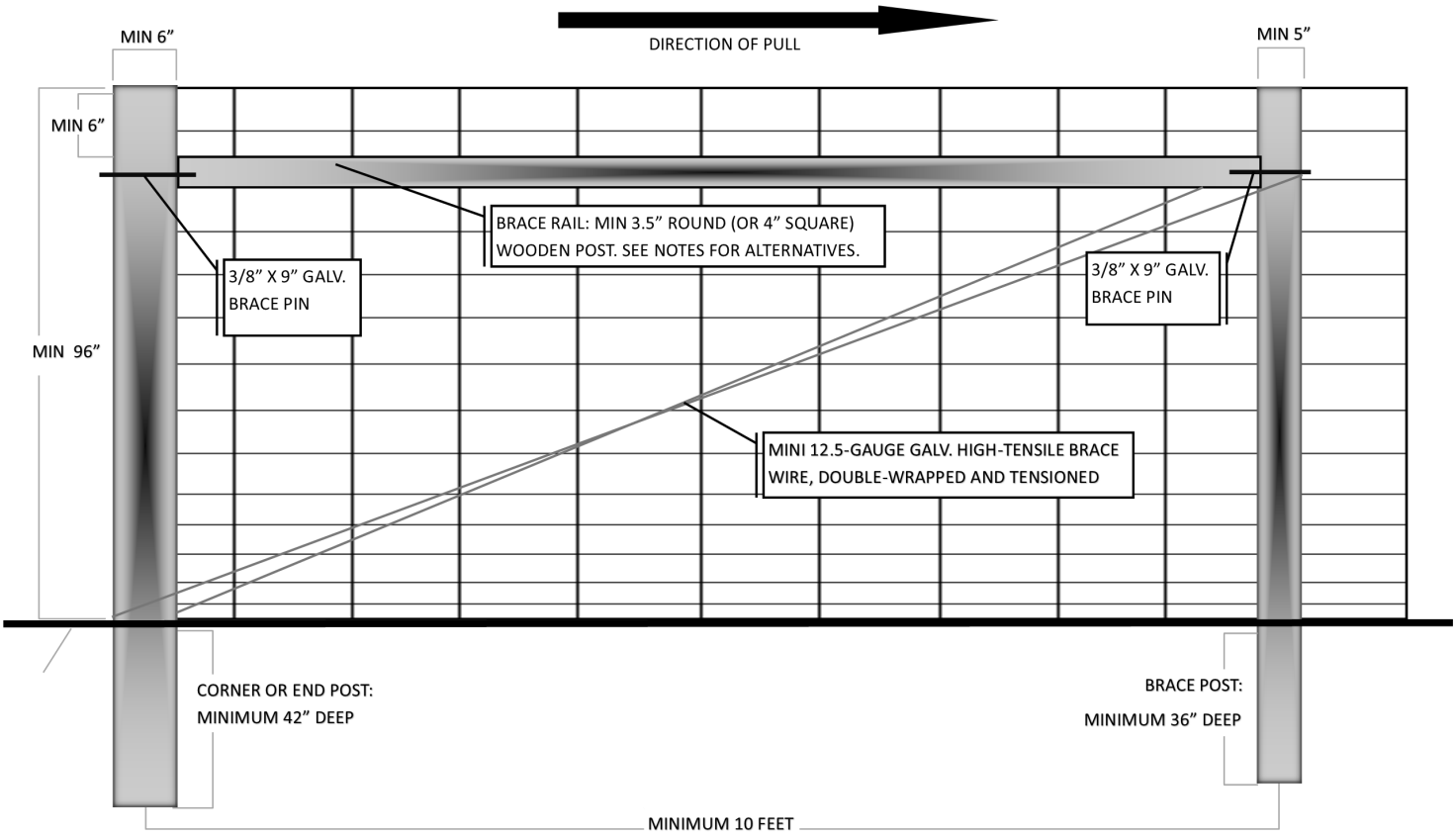
Diagram courtesy of NRCS

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.

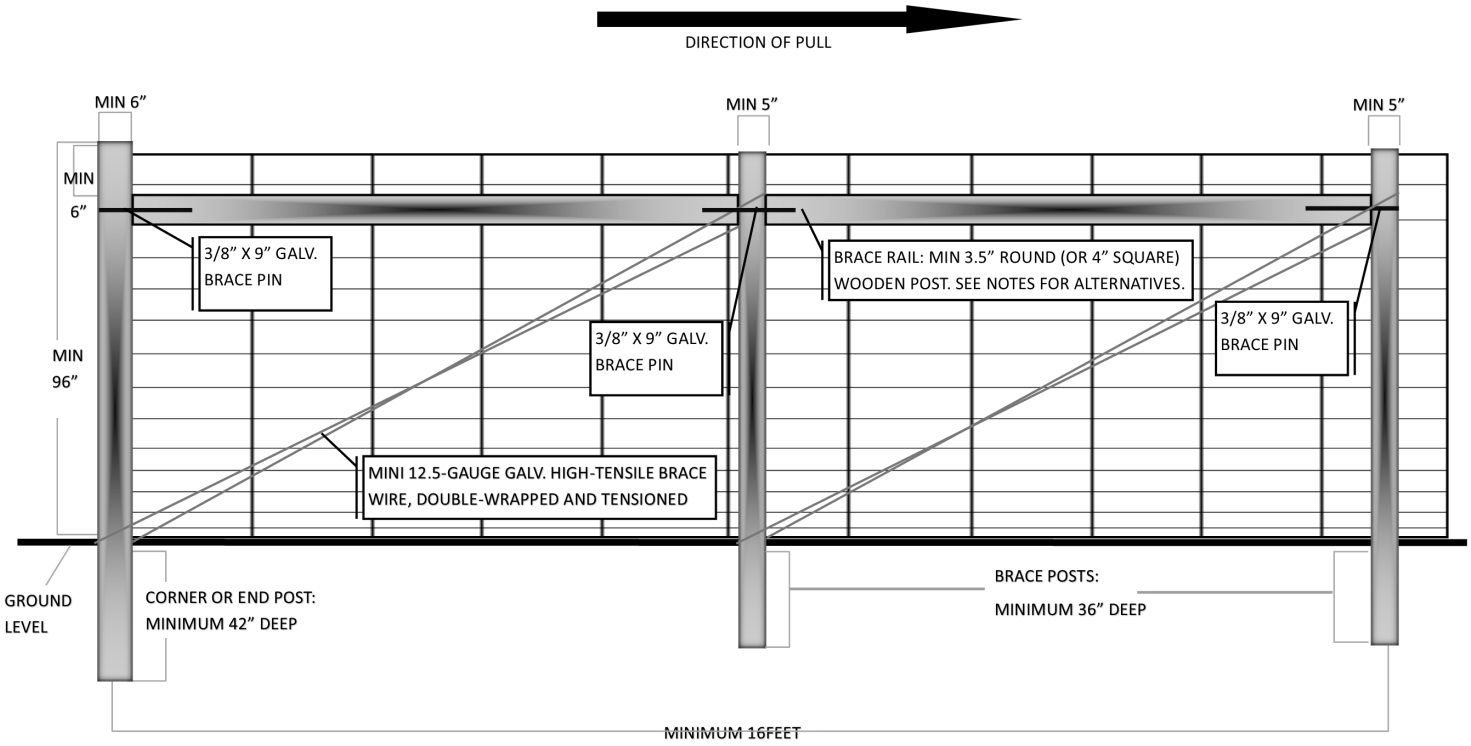
Typical Single-Span Brace Assembly at a Corner or End

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



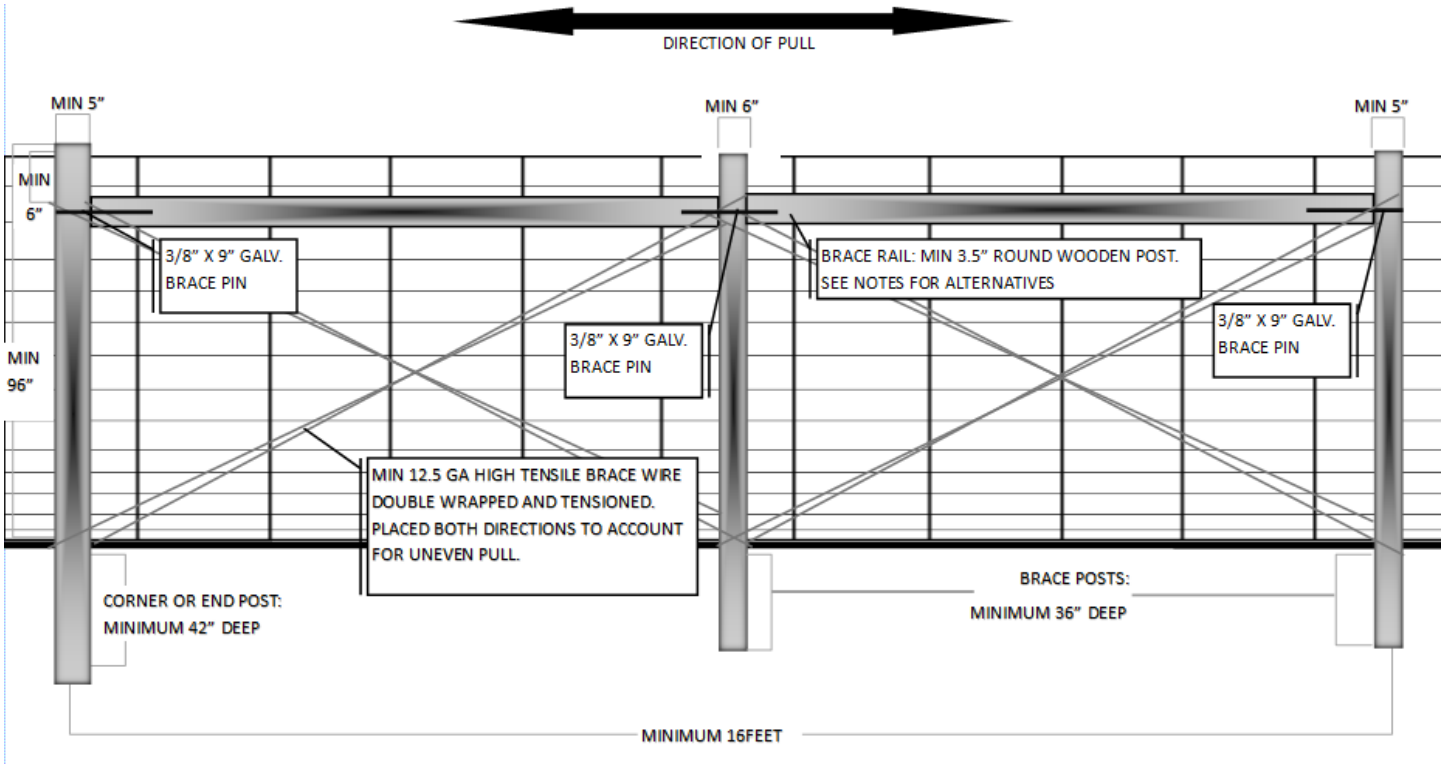
Typical Double Span Brace Assembly at a Corner or End

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



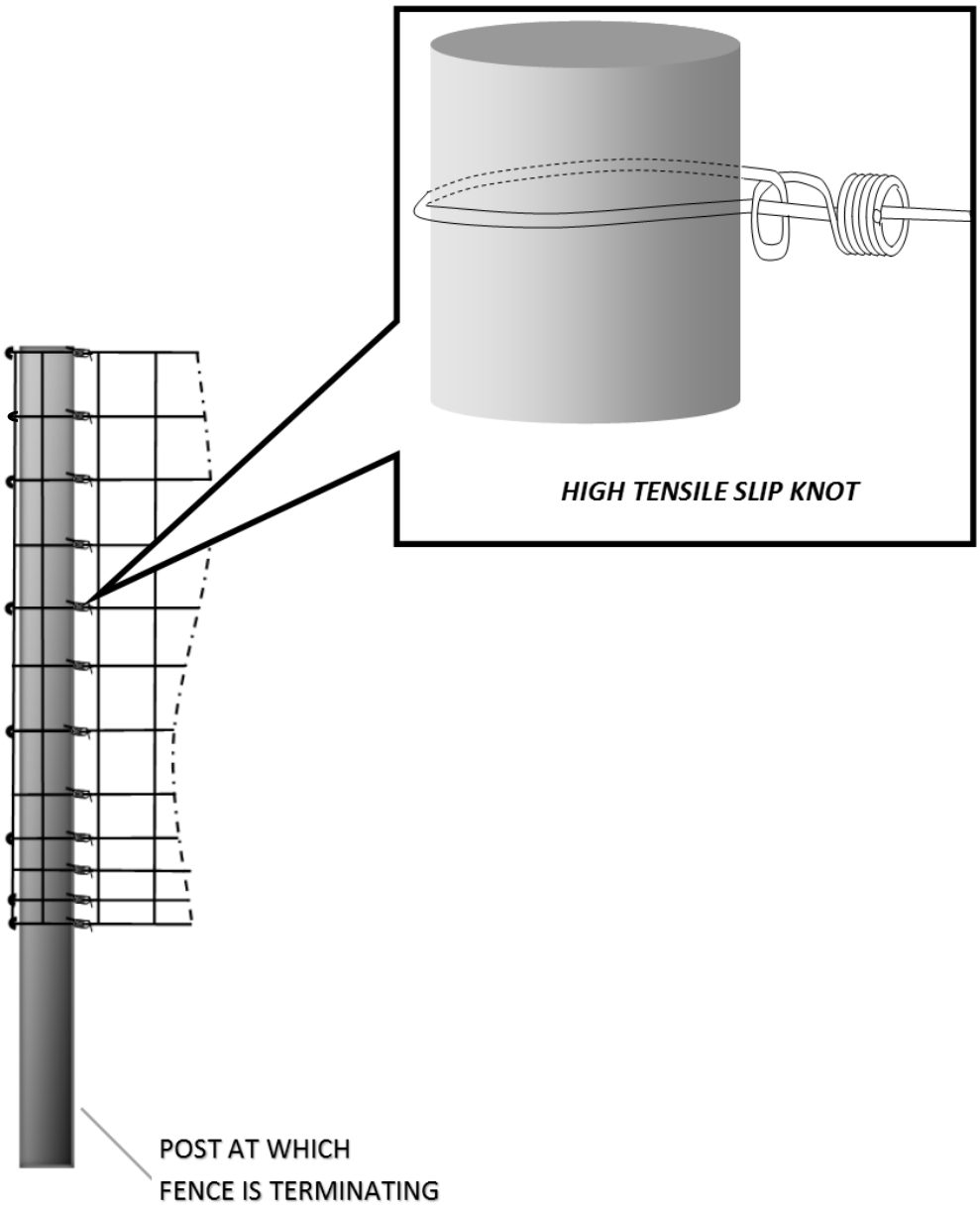
Typical Line Brace Assembly

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



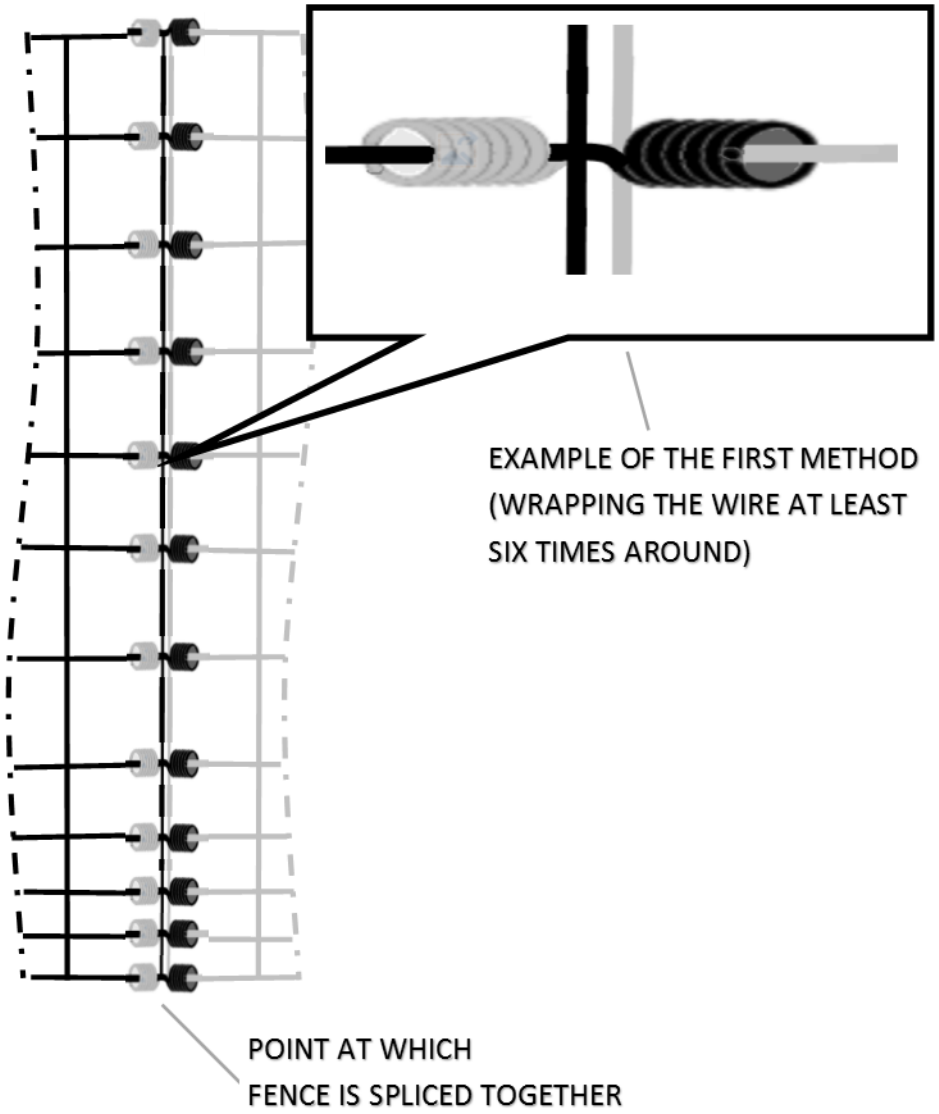
Terminating a Fence

- 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

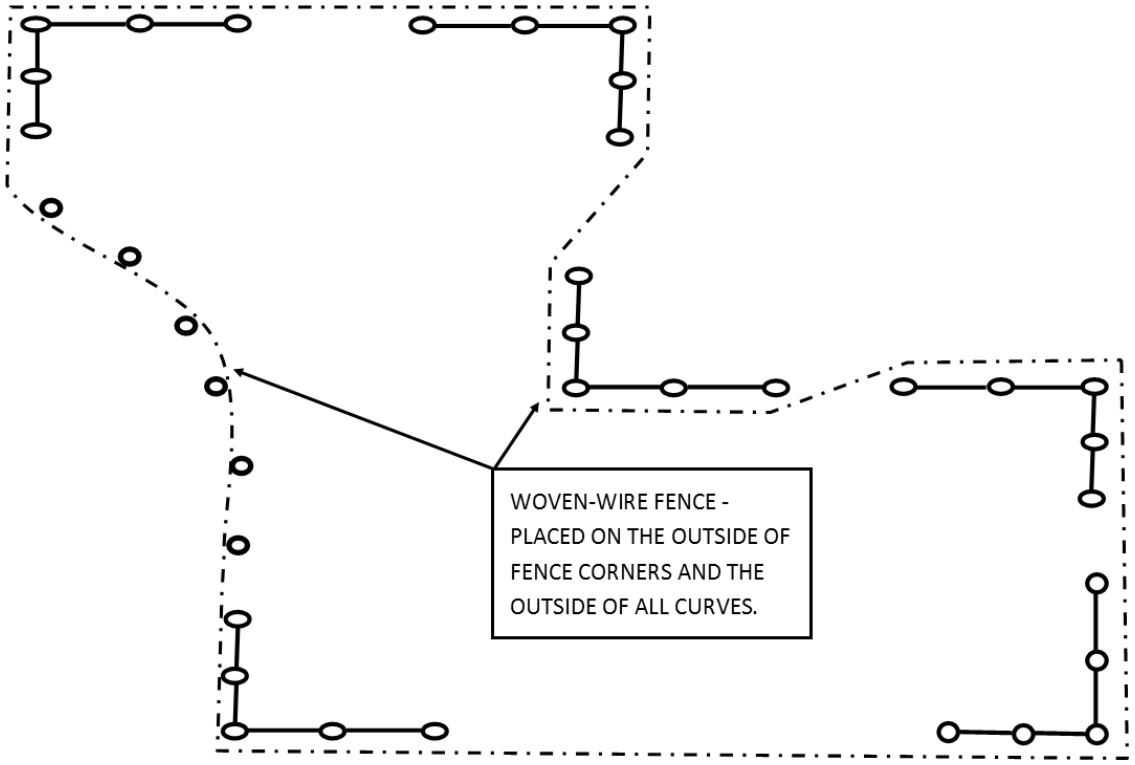
- When it is necessary to splice two sections of fence together, one of the following methods shall be used:
  - Place each fence's vertical stays over each other and wrap the loose horizontal ends of the wires around the corresponding horizontal wire not less than 6 times around;
  - Apply crimp sleeves 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.



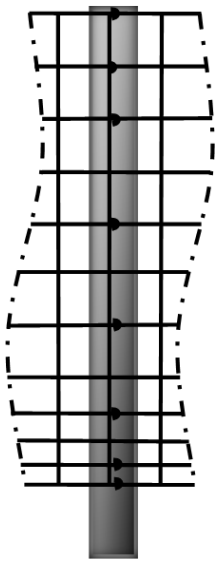
Fastening Woven Wire Fence to Posts

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.

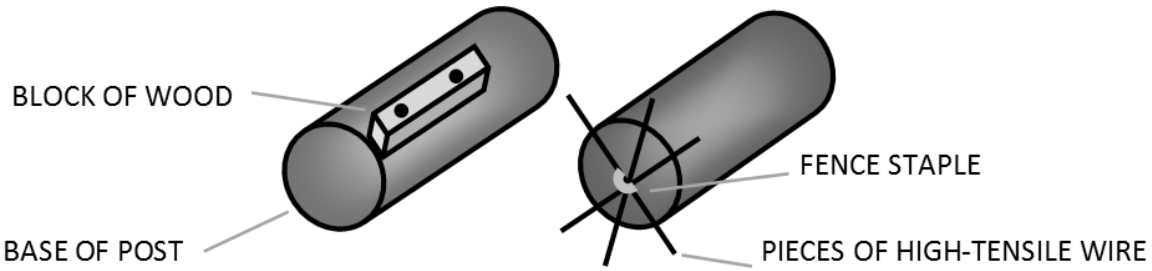
Wire should be held in place by the staple, but the staple should allow the wire to move back and forth freely.

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

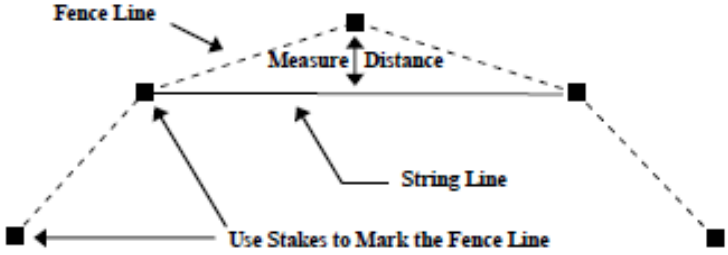
Posts may be pounded or augured. When augured, posts must be anchored at corners, ends, and low points. The following are two ways to anchor and set a post: 1) Attach a wood block near the bottom of the post (block system); or 2) Attach pieces of high-tensile wire and a fence staple at the bottom (spider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

State Agriculture Development Committee (SADC)

Policy P-53: Farmland Stewardship Wildlife Fencing Program

Exhibit B:

Electric Bear Fencing

Design and Installation Specifications

Electric bear fencing shall be installed in accordance with the attached NJ DEP Electric Fencing factsheet, other electric fencing construction guidance provided by NJ DEP as appropriate, and the following provisions:

- The installed fencing must be permanent, i.e., it must have a lifespan of at least 10-years.
- The installed fencing may not be temporary, i.e., any recommendations in the factsheet regarding temporary fencing shall not be considered part of Exhibit B.
- Any other recommendations in the factsheet shall be considered requirements.
- The installed fencing must follow generally accepted standards for materials and construction.

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

ELECTRIC FENCING

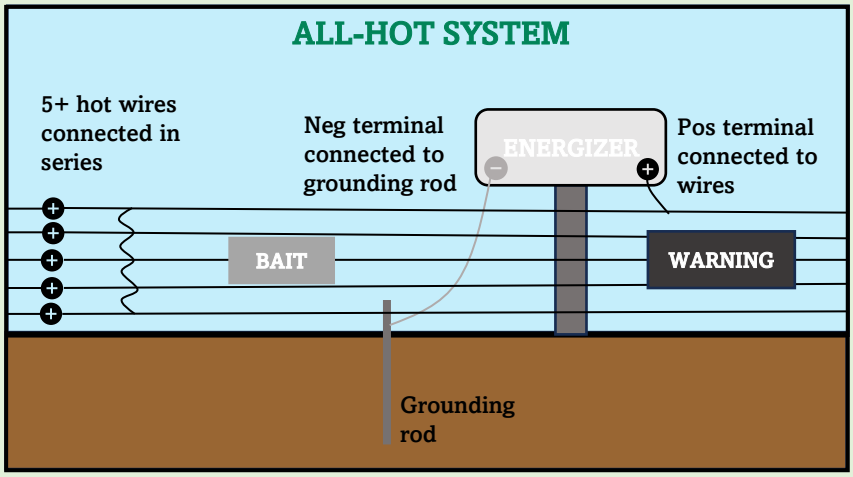
Properly installed electric fencing is the most effective and efficient method of preventing black bear damage to livestock, beehives, crops, silage bags, orchards, gardens and compost piles.

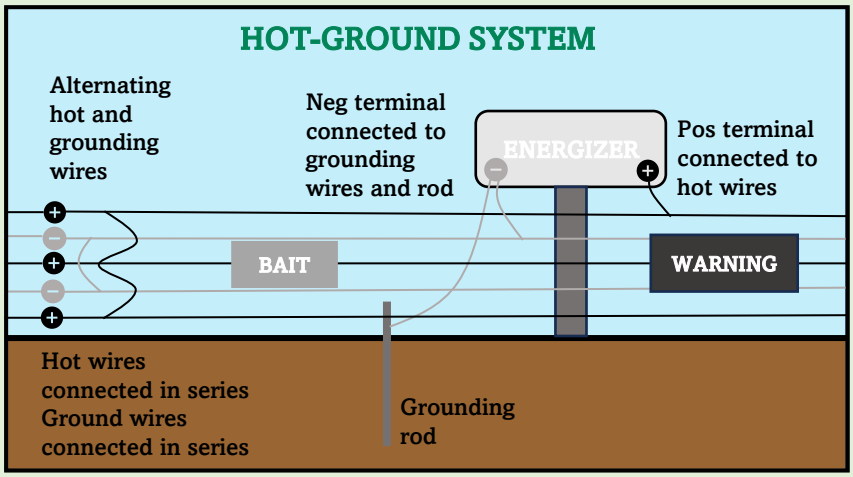
Supplies

Item	Description
Energizer	AC, DC, or solar. Must have a minimum joule rating of 0.7 J and deliver at least 6,000 volts.
Posts	One for each corner and every 8 ft of fencing. For permanent fences, pressure treated 4x4s or metal T-posts are recommended. Both wooden and metal posts require post insulators to prevent the wires from touching the posts and thereby grounding the system. Plastic or fiberglass posts may be used for temporary fences.
Wire	14 or 12 Ga steel wire. 14 Ga aluminum wire or 9+ strand polywire may be used for temporary fences.
Ground rod	At least 6.5 ft of 3/4" or 5/8" galvanized steel. One per joule of energizer's output.
Voltmeter	Allows safe measurement of a fence's voltage.
Vegetation control	Herbicide, mulch, wood chips, or landscaping fabric.
Warning signs	To inform people that the fence is electrified.

Construction

- Establish where the fence will be located. It should be 4-5 ft from the structure it will protect. This should be away from any trees, which a bear could climb and then drop down into the area.
- Clear all vegetation in an 18-in strip along the fence line.
- Install fence posts at corners and at every 8 ft of fencing.
- Install post insulators if using. There should be an insulator for each strand of wire on each post.
- Put up wires, starting at the gate post. Stretch wires to eliminate sagging.
    - For an All-Hot system, use 5+ strands of wire with the lowest wire 8-12" above the ground and the top wire 36-42" high. Wires should be spaced to prevent a bear from going under, passing through or climbing over without fully touching at least 1 of the wires.
    - For a Hot/Ground system, use 5+ strands of alternating hot and ground wires with the lowest wire 8-12" above the ground and the top wire 36-42" high. The bottom and top wires should always be hot wires. Wires should be spaced to prevent a bear from going under, passing through, or climbing over without fully touching 2 of the wires.
- For Hot/Ground system: Attach extra wire to the positive terminal and hot wires. Attach a second wire to the negative terminal, ground rod(s) and ground wires.
- Drive the ground rod(s) at least 6 ft into moist soil near the post where the energizer will be located.
    - In very dry or rocky soils, drive the rod deeper than 6 feet or drive it at a steep angle at a shallow depth to maximize surface area. Frequently water dry soil around the ground rod.
- Attach energizer to post.
- Energize all wires in the fence system.
- Verify with a voltage meter that sufficient current is running through each hot strand.





All-hot vs. hot-ground electric fences: Which one is right for you?

While both systems can provide great protection from black bear damage, there are some considerations to make before you begin construction.

All-hot systems require consistently moist ground, as the soil moisture is what completes the circuit between the bear and the energizer's ground system. As long as there is soil moisture, the bear will receive a shock when touching any one of the hot wires.

Hot-ground systems are better for dry areas or during a drought. No soil moisture is required in this system, but the bear must touch both a hot wire and a ground wire to complete the circuit and receive a shock.

Baiting

- Bait the fence on all sides at 3 ft high. This will direct a mild shock to the muzzle of a bear, which is the most sensitive area. If the shock is delivered to a bear's hide, it may not be felt.
- Options for bait include bacon or peanut butter in tin foil wrapped around the wire.

Maintenance

The following tips are offered to ensure proper maintenance and effectiveness of your electric fence. Every time you visit the site, and at least one a week, check the following:

- Make sure the wires are tight.
- Check voltage on all wires with a voltage meter.
- Keep wires baited at all times.
- Ensure solar-powered chargers are positioned properly and are not located in the shade.
- Change the batteries as needed. Marine battery terminals and lead composition eyelets resist corrosion.
- Remove vegetation beneath the fence that may be touching the wires and any debris, like branches, that may fall on the fence.

To report black bear nuisance or aggressive behavior, contact your local police department or NJDEP Fish & Wildlife at 1-877-WARNDEP (1-877-927-6337).

Exhibit C

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

CRITERIA	QUALIFIER	POINTS	FEASIBILITY PLAN SCORE
Value of Crops to be Fenced	High Value (Fruits, Vegetables, and Nursery) Medium Value (Hay and Grain) Low Value (Pasture)	20 15 0	
Deer Density Per Sq. Mi.	HIgh Density (Greater than 45 Deer Per Sq. Mi.) Medium Density (15 - 45 Deer Per Sq. Mi.) Low Density (Less than 15 Deer Per Sq. Mi.)	20 15 0	
Presence of Black Bears	Per DEP Black Bear Distribution Map	20	
Subtotal		**40**	**0**
Premises Located in No Firearm Discharge Zone	Yes No	10 0	
Premises Open to Hunting	Yes No	10 0	
DEP Deer Depredation Permit for Premises or Farmer Black Bear Season Permit for Premises	Yes No	10 0	
Subtotal		**30**	**0**
Applicant is Young Farmer	Yes No	10 0	
Applicant is Beginning Farmer	Yes No	10 0	
Applicant is Military Veteran Farmer	Yes No	10 0	
Subtotal		**30**	**0**
Total		**120**	**0**