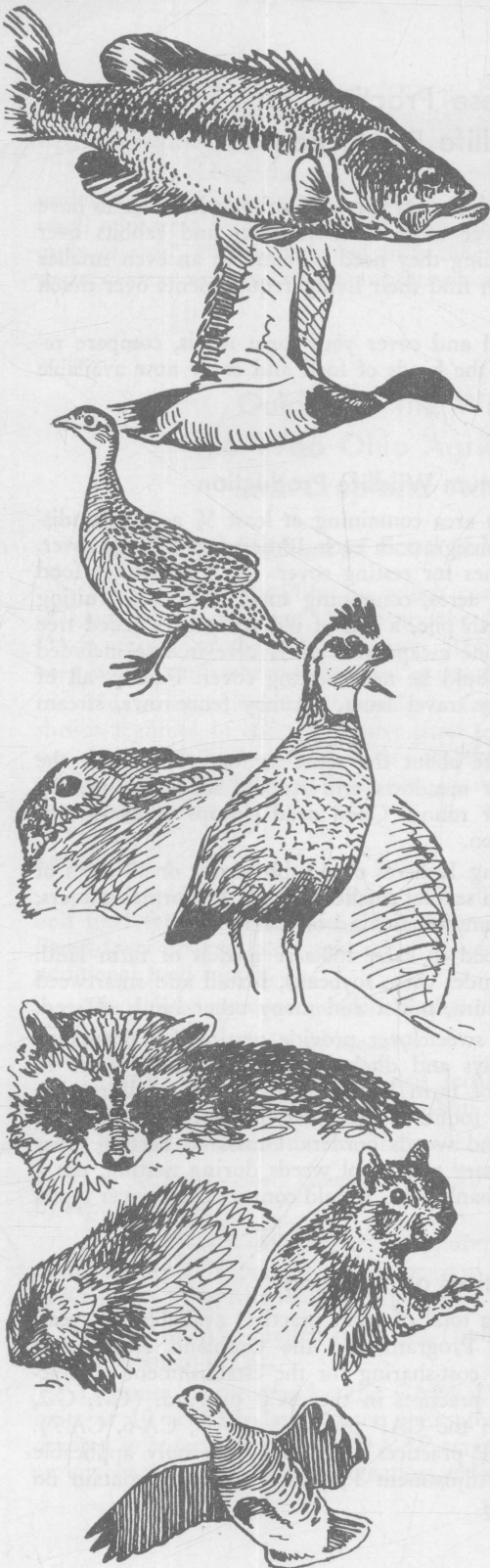


Guide for the
Wildlife Practices
in the 1966 Ohio
Agricultural
Conservation
and Cropland
Adjustment Programs

Revised March 1966

Cooperative Extension Service
The Ohio State University

VISIT YOUR ASCS COUNTY OFFICE
FOR DETAILS



How to Use These Practices for Maximum Wildlife Production

Your farm must provide food and suitable cover for wild animals in order to have abundant wildlife. Quail seldom range over more than 40 acres and rabbits over more than 10 acres. Both do best if everything they need is found in an even smaller area. Pheasants range much farther and can find their living requirements over much larger areas.

To decide what kinds of wildlife food and cover your farm needs, compare requirements for maximum production with the kinds of food and cover now available on the farm.

Requirements for Maximum Wildlife Production

Rabbits require the following: (1) An area containing at least $\frac{1}{2}$ acre of undisturbed legumes, grass-legume mixture or bluegrass in each 10 acres as nesting cover. (2) A thicket of small trees, shrubs or pines for resting cover. (3) One winter food area at least $\frac{1}{10}$ acre in size in each 10 acres, containing small trees and fruiting shrubs. Resting cover should contain a brush pile, a roll of old fence or a felled tree top for escape cover and there should be one escape area of $\frac{1}{4}$ acre in size included in each 10 acres. The winter food area should be near nesting cover. Finally, all of these requirements should be connected by travel lanes, shrubby fence-rows, stream borders and similar kinds of travel cover.

Quail food and cover requirements are about the same as for rabbit, with the additional need for legumes, grass-legume meadows and stubble fields for nesting and rearing cover and for loafing the year round. Quail need clumps of evergreens or brushy thickets for bad weather protection.

Pheasants need at least one area totaling 10 acres of shrubby cover or 30 acres of sweetclover in each 160 acres. This can be in several smaller patches. In normal winters, pheasants use sweetclover fields more than any other kind of cover.

Pheasants need at least 10 acres of food in each 160-acre section of farm land. Their food, during the critical winter, includes corn, soybeans, foxtail and smartweed seeds, alfalfa and sweet clover seeds, sorghum, millet and many other kinds of seed.

Ungrazed and unmowed meadow or sweetclover provide nesting for pheasants. They will also nest in unmowed waterways and ditch banks. They need about 40 acres of nesting cover in each 160 acres of farm land. These can be small nesting sites of $\frac{1}{4}$ acre or more, such as would be found in the grassy cover of old orchards, wide fencerows, protected stream banks and woods borders. Grassland nesting areas should not be mowed; if mowing is necessary to control weeds during nesting, use a flushing bar. Travel lanes, fencerows, ditch banks, etc., should connect these cover types.

Putting the Practices on the Land

There are two federal programs with a total of eight practices available this year. These are the Agricultural Conservation Program and the Cropland Adjustment Program, and each contains provisions for cost-sharing for the establishment of practices beneficial to wildlife. There are five practices in the ACP program (G-1, G-2, G-3, G-4, and H-1) and three practices in the CAP program (CA-5, CA-6, CA-7). The CAP practices are similar to the ACP practices except they are only applicable on land designated under the Cropland Adjustment Program, and they contain no

provisions for cost-sharing on fencing. Finally, the maximum cost-sharing for all CAP practices is \$25 times the number of acres designated on the farm under the CAP agreement, unless higher amounts are authorized by the state committee.

You will choose the cropland areas which you will devote to wildlife production under these two programs. The most likely areas for your wildlife practices will be small odd areas which are cut off from the rest of a field by a stream, drainage ditch, gully or road; awkward shaped areas difficult to farm with present equipment; poorly drained areas or areas which are otherwise unsuited for crop production.

Guide for the Wildlife Practices in the 1966 Ohio Agricultural Conservation and Cropland Adjustment Programs

Establishment of Food Plots and Habitat for Wildlife

There are two practices in which cost-sharing is available for the establishment of food plots and habitat. These are the G-1 Practice of the ACP program and the CA-5 practice of the CAP program. The requirements for these two practices are very similar and where differences exist, they will be noted.

This practice is applicable only to farmland which is to be established in trees, shrubs, legumes, or other vegetative cover to provide food or habitat for wildlife. When cost-sharing for lime or fertilizer is authorized, eligible wildlife planting must be maintained on the land for at least two consecutive crop years following application of the material.

Legumes

Areas planted to sweetclover or sericea lespedeza will provide excellent cover and food for native wildlife, particularly when planted near more permanent cover. Sweetclover makes good year-round cover for pheasants and lespedeza insures an additional food supply.

The following recommendations should be followed when planting legumes:

- (1) Prepare a desirable seedbed.
- (2) Apply liming materials and fertilizer at rates determined by a recent soil test from The Ohio State University Soil Testing Laboratory.
- (3) Make a minimum seeding on each acre with one of the following mixtures:
 - (a) ACP-G1—Seed sweetclover at 10 pounds or sericea lespedeza at 20 pounds by September 15.
 - (b) CAP-CA5—Mixture of sweetclover at 5 pounds, or Ladino clover at 1 pound with timothy at 4 pounds, or bromegrass at 6 pounds, or orchardgrass at 4 pounds, or Kentucky 31 or Alta fescue at 6 pounds.
 - (c) CAP-CA5—Sericea lespedeza (hulled) at 20 pounds with one of the grasses at rates specified in (b).

Legumes planted under the CAP-CA5 practice will be established in strips or units of 10 acres or less (5-acre plots are preferable) with not more than 20 acres devoted to legumes for each 100 CAP acres. Five acres of legumes may be established on any participating farm designating at least 5 acres in the program.

Conifers, Food Bearing Trees, and/or Shrubs

Trees should be planted in clumps of 50 to 100 trees or in a border adjacent to an existing wooded area, spaced 8 ft. by 8 ft. Locate these plantings so that they break up large blocks of crop and pasture land. These plantings are ideal for gullied and eroded spots, hard-to-farm patches which should be in permanent cover, steep banks and odd-shaped areas. Plantings must be fenced from livestock.

You may secure your tree planting stock from the Ohio Division of Forestry and Reclamation, 815 Ohio Departments Building, Columbus, Ohio 43215. ASCS, Extension Service and SCS offices handle application forms for trees. Seedlings should be handled and planted according to current recommendations. For best results, trees should be planted between March 15 and April 30.

Fruit bearing shrubs have a place in your plan as a border to woodlots or as a border to evergreens in clump plantings and windbreaks. The kind of shrubs to plant will depend upon what is available from state nurseries, what you can purchase from private nurseries and upon your soil conditions. The following shrubs will do well under most Ohio planting conditions:

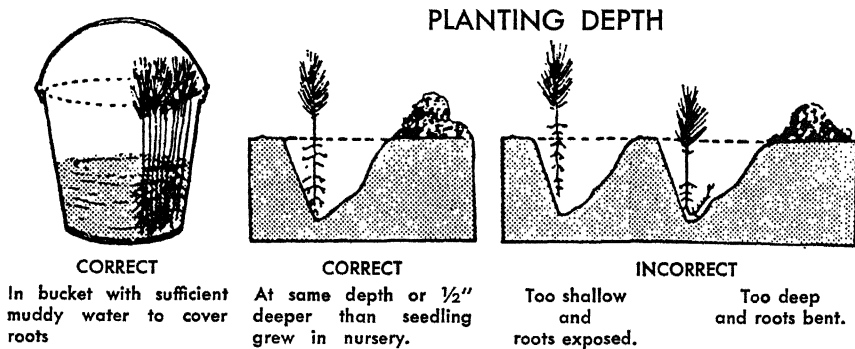
Gray Dogwood
Wild plum
American hazelnut
Silky Dogwood

Washington hawthorn
Bush Honeysuckle
Zumi Crabapple
American Cranberrybush

Space the plants 3 ft. by 3 ft. to 5 ft. by 5 ft. apart and interseed the planting with timothy or bluegrass to retard the invasion of hardwood trees.

Each unit or travel lane established under either the ACP or CAP program shall not be less than 0.25 acre or more than 10 acres in size. No cost-sharing is authorized for multiflora rose.

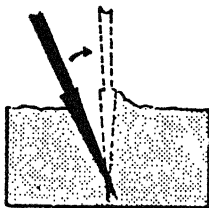
The following pictures illustrate the proper handling and planting of tree and shrub stock. If planting is not possible immediately after receiving your stock, it should be heeled in. Proper handling and planting will insure maximum success of the planting.



DIBBLE PLANTING



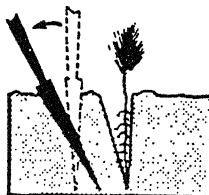
Dibble or Planting Bar



1. Insert dibble at angle shown and push forward to upright position.

2. Remove dibble and place seedling at correct depth.

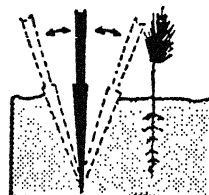
3. Insert dibble 2 inches toward planter from seedling.



4. Pull handle of dibble toward planter packing soil at bottom of roots.

5. Push handle of dibble forward from planter packing soil at top of roots.

6. Insert dibble 2 inches from last hole.

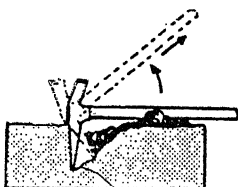


7. Push forward then pull backward filling hole.

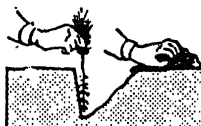
8. Fill in last hole by stamping with heel.

9. Pack soil around seedling with feet.

MATTOCK PLANTING



1. Insert mattock-lift handle and pull.



2. Place seedling along straight side at correct depth.



3. Fill in and pack soil to bottom of roots.

4. Finish filling in soil and pack with heel.

5. Pack around seedling with feet.

Annual Food Plots For Wildlife

Areas planted to corn, Korean lespedeza, grain sorghum and other grains serve as excellent food supplies for wildlife. One of the following seed mixtures can be established in strips of $\frac{1}{4}$ acre or less with not more than one food plot per 10 acres. Seedings must be made by June 15. Plot layout and mixtures other than listed below may be used when recommended in writing by a qualified technician.

(1) Corn, 2 pounds. (Dwarf hybrid seed recommended.)

(2) Mixture of 2 pounds of corn, with 7 pounds Korean lespedeza seeded at time of corn cultivation. (Only recommended south of U.S. Route 40.)

(3) Mixture of 2 pounds of corn, with 5 pounds hairy vetch seeded at the time of corn cultivation.

(4) Mixture of 2 pounds of grain sorghum, 2 pounds of soybeans, and 1 pound of German millet.

(5) Korean lespedeza, 7 pounds. (Only recommended south of U.S. Route 40.)

(6) Hairy vetch, 5 pounds.

A good seedbed must be prepared and the seed machine-planted or broadcast and/or disced lightly to cover. Apply a minimum total of 80 pounds of complete fertilizer to each $\frac{1}{4}$ acre plot before or at the time of seeding.

Where fencing is needed to protect the seeding from grazing by domestic livestock, it must meet the following specifications. It shall consist of (1) four strands of barbed wire or its equivalent or (2) woven wire with one or more top strands of barbed wire totalling 44 or more inches in height. Such fencing shall be fastened to black locust (or equally durable) posts spaced no more than one rod apart. Federal cost-sharing may be allowed for fencing which meets these qualifications (excluding boundary and road fences) under the ACP program.

Herbicides may be used to control noxious weeds. If mowing is necessary, delay until after July 1.

Federal Cost-Sharing

For the ACP-G 1 Practice:

- (A) For Legume Plantings:
 - (1) \$2.80 per acre for land preparation requiring discing or comparable preparation measures.
 - (2) \$5.50 per acre for land preparation requiring plowing or comparable preparation measures.
 - (3) \$. . . per ton for lime. (The current county rate for practice ACP-A4.)
 - (4) Fertilizer: 10 cents per pound of nitrogen (N); 8 cents per pound of phosphate (available P_2O_5); 4 cents per pound of potash (available K_2O).
 - (5) \$1.40 per acre for seed and seedling sweet clover. \$5.10 per acre for seed and seeding sericea lespedeza.
- (B) For Conifers, Food Bearing Trees and/or Shrubs: \$3.30 per 100 trees or shrubs planted.
- (C) For Annual Food Plots: The following amounts apply for each 0.25 acre annual food plot including preparation, seed and seeding, and fertilizer:
 - (1) \$4.70 where seed mixture (a) or (d) is used.
 - (2) \$5.70 where seed mixture (b, c, e., or f.) is used.
- (D) For Fencing: 80 per cent of the cost not to exceed \$2.40 per rod of barbed wire or \$3.80 per rod of woven wire fence installed.

For the CAP-A5 Practice:

- (A) For legume plantings:
 - (1) \$1.75 per acre for land preparation requiring discing or comparable preparation measures.
 - (2) \$3.40 per acre for land preparation requiring plowing or comparable preparation measures.
 - (3) \$. . . per ton for lime. (The current rate for practice CA-1.)
 - (4) Fertilizer: 6.3 cents per pound of nitrogen (N); 5 cents per pound of phosphate (available P_2O_5); 2.6 cents per pound of potash (available K_2O).
 - (5) Cost-share per acre for seeding grass-legume mixture (a) \$1.75, mixture (b) \$4.50.
- (B) For Conifers, Food Bearing Trees, and/or Shrubs: \$2.10 per 100 trees or shrubs planted.

- (C) For Annual Food Plots. The following amounts apply for each 0.25 acre annual food plot including preparation, seed and seeding, and fertilizer:
- (1) \$2.90 where seed mixture (a) or (d) is used.
 - (2) \$3.50 where seed mixture (b., c., e., or f) is used.

Development or Restoration of Shallow Water Areas for Wildlife

Two practices also exist in which cost-sharing is available for the development or restoration of shallow water areas for wildlife. These are the G-2 Practice of the ACP Program and the CA-6 Practice of the CAP Program. The requirements for these two practices are similar. Where differences exist, they will be pointed out.

The G-2 practice is applicable only to farmland which is suitably located and adapted to the development or restoration of shallow water areas for wildlife by the restoration of drained areas which were formerly marsh and the creation and development of new water areas by installing earth plugs or water control structures and by level ditching. Such areas, when developed, will enhance the production of waterfowl and furbearers.

Water areas which are created or restored by the installation of dams must be constructed so that a minimum pool of $\frac{1}{4}$ acre of surface water averaging 24 inches in depth is maintained. Larger areas are more desirable. Marshlands created by the use of retaining dikes which are flooded by pumping or other methods shall be designed to contain a minimum pool of one acre of surface water averaging 24 inches in depth. All water control structures employed to create such areas shall be protected from "wash-out" by the installation of the necessary emergency spillways or other outlet devices. A satisfactory vegetative cover shall also be established on all exposed earthen structures such as dams, fills, dikes, spillways and disturbed or borrow areas.

Where wetland areas are created through level ditching, ditches shall be at least 5 feet deep and have a top width of 15 feet. Spoilbanks shall be at least 3 feet and not more than 5 feet in height and are to be thrown on alternate sides of the ditch at 50-foot intervals or on the north or west side of the ditch. All spoilbanks must have a satisfactory vegetative cover established on them.

Vegetative cover shall be established on all exposed earth in accordance with the following specifications: A desirable seedbed shall be prepared, and a minimum total of 150 pounds per acre of available nitrogen, phosphate and potash shall be applied to the area. One of the following mixtures shall be seeded on each area:

(1) Kentucky 31 or Alta fescue, 25 pounds; or (2) Kentucky 31 or Alta fescue, 15 pounds and brome grass, 10 pounds; or (3) Kentucky 31 or Alta fescue, 15 pounds orchardgrass, 8 pounds; or (4) Kentucky 31 or Alta Fescue, 15 pounds and reed canary-grass, 8 pounds. Other mixtures may be used when recommended in writing by the SCS Work Unit Conservationist. If required by the technician's plan, mulch the area seeded with straw, hay or strawy manure at a minimum rate of two tons per acre.

Water control structures should be inspected periodically. Holes, breaks, or other conditions which may allow water to escape should be repaired immediately. The practice area should also be protected from grazing.

The ACP Program contains the following requirements for fencing to protect the pond, dam and vegetative spillway from grazing. Where a fence is necessary, it shall be located not less than 60 feet from the pond at normal water level. This fence shall be fastened to black locust (or equally durable) posts spaced no further than one rod apart. Use at least (1) four strands of barbed wire or its equivalent or (2) woven wire with one or more top strands of barbed wire totaling 44 inches or more in height.

Since water area and marsh development require the application of biology and engineering, you should consult your county agent, county game protector, or SCS

work unit conservationist for advice on this practice. All dams and reservoirs must be designed, planned and staked-out by an approved technician in accordance with approved SCS standards. Construction must be in accordance with these plans.

Federal Cost-Sharing

For the ACP-G2 Practice: Under this practice, 80 per cent of the cost of earth moving and 80 per cent of the cost of the mechanical spillway may be allowed. \$1.40 may be allowed for each 1,000 square feet of area seeded and mulched and \$.50 per 1,000 square feet seeded but not mulched. The rate for fencing is 80 per cent of the cost not to exceed \$2.40 per rod of barbed wire or \$3.80 per rod of woven wire fence installed.

For the CAP-CA6 Practice: Two rates are available under this practice. These are the "regular" rate (applicable to most participants) and the "high" rate. Farmers whose livelihood is largely dependent upon the farm and whose annual gross family income does not exceed \$3,000, may apply for the high rates. The high rates are the same as those for the ACP-G2 Practice except no provision is made for cost-sharing on fencing.

Regular rates are 50 per cent of the cost of earth moving, 50 per cent of the cost of a mechanical spillway, \$1.40 per 1,000 square feet seeded and mulched, and \$.50 per 1,000 square feet seeded but not mulched.

Construction of Ponds and Dams for Wildlife

There are also two practices in which cost-sharing is available for the construction of ponds and dams for wildlife. These are the G-3 Practice in the ACP Program and the CA-7 Practice in the CAP Program. Requirements for these two practices are similar and where they differ, note will be made.

This practice is applicable only to permanent ponds or dams for wildlife constructed on farmland. No federal cost-sharing will be allowed for ponds or dams which will impound water on areas which will be drained periodically for the production of crops, or for dams or ponds which are primarily for the commercial production of fish or other wildlife for food.

The minimum size of the pond shall be 0.25 acre and the watershed area contributing runoff to the pond shall not exceed 30 acres. The ratio of watershed area to pond area at normal water level shall not be less than 6 to 1, except where auxiliary means of water supply is provided. Any pond shall be at least 8 feet deep at the maximum depth. Your dam must meet the engineering specifications of the Soil Conservation Service. Consult your county agent, county game protector or SCS work unit conservationist for guidance on this matter.

The contributing watershed shall be protected by conservation practices deemed adequate to control erosion and prevent subsequent silting of the pond. The pond, dam and spillway shall be protected from grazing.

An area not less than 100 feet from all sides of the pond at normal water level shall be managed according to acceptable wildlife management practices. If a boundary line, road, woodlot or similar obstruction exists less than 100 feet from the pond, an exception in the width of the managed area and in the location of a fence, if one is necessary, may be made if authorized in writing by a local technician. Loss in area on one or more sides must be compensated for on the other sides by increasing the width to obtain an average of 100 feet on all sides. For management assistance consult a qualified technician.

A vegetative cover shall be established on the earth fill, disturbed and borrow areas, and spillway. Till the surface to provide sufficient loose soil to establish a desir-

able seedbed. Then follow the specifications listed under the Development or Restoration of Shallow Water Areas for Wildlife (Practices G-2 and CA-6) for dams and spillways in the application of fertilizer, seeding and mulching of such areas.

The pond, dam and vegetative spillway should be protected from grazing. Provisions for cost-sharing on fencing are available under the ACP-G3 Practice and requirements are the same as those in the G-2 Practice. No provisions are available for fencing under the CAP CA-7 Practice.

All dams and reservoirs including the mechanical and emergency spillways and bleeder drains shall be designed, planned, and staked-out in advance of construction by an approved technician in accordance with approved SCS standards, and must be constructed in accordance with those plans.

Federal Cost-Sharing

For the ACP G-3 Practice: Federal cost-sharing may be allowed at the rate of 50 per cent of the cost of earthmoving and 50 per cent of the cost of a mechanical spillway. \$1.40 per 1,000 square feet of area seeded and mulched and 80 per cent of the cost not to exceed \$2.40 per rod of barbed wire or \$3.80 per rod of woven wire fence installed may also be allowed. Your ASC County Committee may not be able to cost-share 50 per cent of the cost of the entire practice because of the large demand for limited ACP funds.

For the CAP CA-7 Practice: Two rates are also available under this practice and qualification requirements are the same as those for the CAP CA-6 Practice. The high rates are 80 per cent of the cost of earthmoving and 80 per cent of the cost of a mechanical spillway. \$1.40 per 1,000 square feet of area seeded and mulched will also be allowed. Regular rates are the same as those for the ACP G-3 Practice except that there is no provision for cost-sharing on fencing under this practice.

Improvement of Wildlife Food and Cover

There is no practice in the current CAP Program which provides for the improvement of wildlife food and cover, such as the G-4 Practice in the ACP Program. The following requirements apply to the ACP G-4 Practice.

Under this practice, land is managed to improve existing wildlife food and cover or to modify food and cover conditions. This practice is applicable on land previously hayed or pastured as well as on land in trees. No Federal cost-sharing will be allowed under this practice for hay, pasture, livestock feed, or plant products for human consumption or processing.

The following are the minimum requirements for the improvement of open land areas such as pastures and hayfields to develop habitat for open land forms of wildlife. Mow or clip strips 20 to 30 feet wide in late July or early August to control the invasion of trees and shrubs. Alternate mowed strips with unmowed strips 80 to 100 feet wide. Mowing will be done in such a fashion that the same strip should be mowed only once in five years. Strips next to woodland borders need not be shifted and may be mowed annually.

The minimum requirements for releasing wild trees and shrubs of wildlife food value to develop maximum, more dependable fruit yields by opening the crown to full sunlight are as follows: Cut, girdle, or chemically treat nearby woody plants which are larger or taller than the desired plants. The size of the opening made in this fashion shall be determined by multiplying the diameter breast high (Dbh) (in inches) of the tree to be released by 3 and reading the product in feet. An example of this would be a chestnut with a Dbh of 4 inches $4 \times 3 = 12$ foot opening.

A minimum of four desirable trees per acre of woodland should be released in order to assure an adequate food supply in the future. Cost-share rates are based on this number and if fewer trees are released, the cost-share rate will be lowered.

Woody materials removed in the releasing operation may be used for construction of brush-piles for animal cover. If herbicides are used instead of cutting or girdling, they shall be applied in accordance with state laws, regulations and recommendations pertaining to their use.

Federal Cost-Sharing

Federal cost-sharing may be allowed at the rate of 80 percent of the cost of mowing or clipping on land previously in pasture or hayfield not to exceed \$4.00 per acre. Eighty percent of the cost of killing or cutting and piling of trees, not to exceed \$5.00 per acre, may be allowed for releasing wild trees and shrubs.

Finally, although additional mowings or clippings may be performed on the open land improvement areas, cost-sharing for mowing of an area may be authorized only once each five years.

Farmstead Windbreaks for Beautification and Conservation

This is a new practice in the ACP Program for 1966. It is known as the H-1 Practice and allows federal cost-sharing for the establishment of shrub and tree windbreaks for farmsteads and feedlots. Such windbreaks, when properly placed, provide wildlife habitat, lend beauty to the landscape, and reduce wind erosion on adjacent farmland. Orchard trees and Christmas trees do not qualify for assistance.

The following are the minimum requirements for this H-1 Practice. Your Soil Conservation Service technician will assist you in the planning of a windbreak. It should be located on one or two windward sides of the farm buildings and be at least 150 feet long and 3 rows wide. This planting must include 2 or more rows of trees, and the nearest row of trees or shrubs must be at least 75 feet from the farm buildings.

Proper site preparation is essential and will insure a better start for this planting. Existing vegetation must be completely removed by plowing or scalping in an area 24 inches square around each tree or shrub. Plant trees at 8 to 10 foot intervals in the row (shrubs 3 to 6 feet) and allow 10 feet between rows for ease of cultivation. Follow proper methods when planting.

White pine, red pine, Austrian pine, Norway spruce, and northern strains of arborvitae are recommended as the tree species for windbreaks. For best results, plant transplanted stock at least two years old. Shrubs may be planted in a row on one or both sides of the windbreak and recommended shrubs include silky dogwood, lilac, bush honeysuckle, *Spiria van houtii*, medium purple willow and/or other shrubs recommended by the SCS technician. Select good planting stock with 8 to 12 inch tops.

Protect young windbreaks from fire, grazing and encroachment by weeds, briars, and undesirable trees and shrubs. Where a fence is needed to protect the planted area from livestock, federal cost-sharing may be allowed for permanent fencing except boundary and road fences. Such a fence should be fastened to black locust (or equally durable) posts spaced no further than one rod apart. Use four strands of barbed wire or its equivalent or woven wire with one or more top strands of barbed wire totaling 44 inches or more in height.

If losses due to extreme drought, insects, diseases, rodents or fire exceed 50 percent of total planting and are not due to the owner's carelessness, cost-sharing for replanting may be allowed.

Federal Cost-Sharing

Cost-sharing may be allowed at the rate of \$5.50 per acre for land preparation requiring plowing or comparable measures. Eighty per cent of the cost of trees and shrubs not to exceed \$5 per hundred for trees planted and \$11 per hundred for shrubs planted may also be allowed. Finally, fencing may be cost-shared at the rate of 80 per cent of the cost not to exceed \$2.40 per rod of barbed wire fencing installed and \$3.80 per rod of woven wire fencing installed.

SPECIAL NOTE

Cost-share assistance under the Agricultural Conservation Program is limited by Law to agricultural producers. An agricultural producer is an owner, landlord, or tenant on a farm that produces field crops, vegetables, pasture, hay, orchard or vineyard crops, forest products, livestock or other agricultural commodities, for present or future sale or use on the farm.

STATEMENT OF AUTHORSHIP AND ACKNOWLEDGEMENT

This bulletin was prepared by Thomas M. Stockdale, Extension Wildlife Specialist, in cooperation with representatives of the Ohio Division of Wildlife and the Soil Conservation Service and details were taken from the 1966 Agricultural Stabilization and Conservation Service Handbook.

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