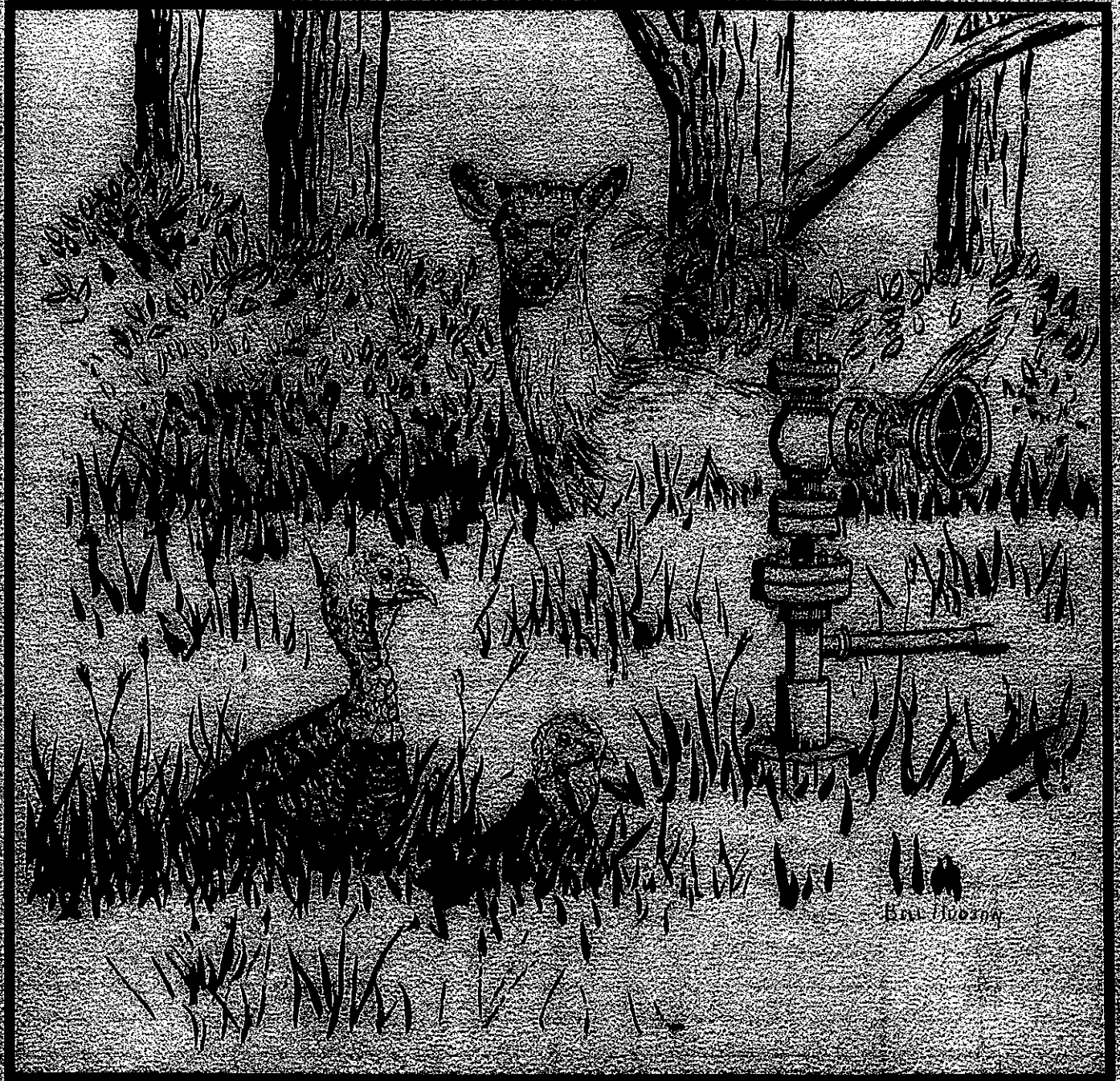


# Managing Gas & Oil Well Sites for Wildlife



West Virginia  
Department of Natural Resources  
and  
Department of Energy

MANAGING GAS AND OIL WELL  
SITES FOR WILDLIFE

STATE OF WEST VIRGINIA

Arch A. Moore, Jr.  
Governor

Department of Natural Resources  
Ronald R. Potesta  
Director

Department of Energy  
Kenneth R. Faerber  
Commissioner

1986

## PREFACE

"Managing Gas and Oil Well Sites for Wildlife" was prepared as a guide to provide information for the development of wildlife habitat beyond that normally associated with reclaimed oil and gas well sites. The implementation of ideas contained within this document, in conjunction with erosion and sediment controls and reclamation requirements, can result in a productive area desirable to a variety of wildlife.

## ACKNOWLEDGEMENTS

This project would not have been possible without the input of many individuals. The initial idea and motivating thrust was provided by Michael Mills (WV-DNR Water Resources) and Bob Radabaugh (Trio Petroleum Corp.). The text of the report was written by Curtis Taylor, Jay Jeffries, Kerry Bledsoe, and Roger Anderson (WV-DNR, Wildlife Resources). Technical expertise and professional judgement were provided by Ted Streit, Robert Stewart, and Phil Tracy (WV-DOE, Division of Oil and Gas); Eli McCoy, Billi Brannon, and Ron Wigal (WV-DNR Water Resources); Gary Gwinn and Dixie Shreve (U.S.D.A. Soil Conservation Service); Curtis Lucas (Pennzoil Company); and Dick Cook (Consolidated Gas Transmission Corp.). The figures were illustrated by Leslie Chincheck (WV-DNR Public Information Office). The cover was prepared by Bill Hudson (WV-DNR, Wildlife Resources).

## Managing Gas and Oil Well Sites for Wildlife

### Introduction

As demands for energy continue to grow, the exploration and development of gas and oil reserves in West Virginia will undoubtedly increase. These increases will result in the disturbance of a significant amount of fish and wildlife habitat, and potentially adversely affect current wildlife populations statewide. However, these well sites also offer excellent opportunities for restoration and enhancement of wildlife habitat through reclamation programs. The implementation of the management recommendations included in this guide is entirely voluntary on the part of the gas and oil well operator. With proper planning, operators can create many acres of prime wildlife habitat during the standard revegetation of well sites with little or no additional cost.

It should be emphasized that the primary environmental concern in managing gas and oil well sites is to minimize soil erosion. Providing wildlife habitat on these sites is a secondary feature of reclamation and should not be considered a substitute for erosion and sediment control.

The recommendations and information which follow are offered as a basic guide in managing well sites for wildlife. Coordination biologists with the West Virginia Department of Natural Resources' Wildlife Resources Division can be contacted for any technical assistance that may be needed (Appendix 1) or contact the Soil Conservation Service (Appendix 2).

### Planning

Before attempting any wildlife management projects, operators should follow 3 basic planning procedures:

1. Identify existing wildlife habitat that may be affected by the proposed well site. If any threatened or endangered species, or critical habitats (i.e., wetlands) are encountered, every effort must be made to protect and avoid destroying them.
2. Select the wildlife species to be favored by revegetation efforts. Identify the limiting factors for those species and plan habitat restoration measures to provide for these conditions.
3. Identify the habitat management procedures to be used in restoration of the site. Include herbaceous seed mixtures, seeding rates, shrub plantings, planting designs, and shrub densities in initial reclamation plans.

To insure development of a successful management program, operators should also enlist the technical assistance of a professional wildlife biologist in the planning process. This service is provided free of charge by the West Virginia Wildlife Resources Division and by the U.S. Soil Conservation Service.

#### General

The cleared openings created by oil and gas well drilling operations offer the potential for excellent wildlife habitat provided the sites are reclaimed with vegetation beneficial to wildlife.

An ideal revegetation plan for wildlife should include planting a variety of trees and shrubs (three or four species per site) in either rows or clumps leaving a major portion of the area planted only to

grasses and legumes. Where woody vegetation is planted, the herbaceous seeding mixture should not include sericea lespedeza or crown vetch because they hinder the growth and survival of tree and shrub seedlings.

Following revegetation, the planted trees, shrubs, and other species that volunteer will provide a variety of food and cover for wildlife. In addition, the areas planted to herbaceous cover will provide excellent brood range for turkeys, grouse, and various song birds which feed on the increased amount and variety of insects supported by grasses and legumes.

The numerous trees and shrubs which provide food and cover for wildlife are listed in Table 1. The majority of these trees and shrubs are at least moderately shade tolerant, a requirement for survival in previously forested, relatively small openings provided by oil and gas well sites. Apple and crab apple are intolerant of shade and, if selected, should be planted toward the center of the site.

Several species of trees and shrubs should be planted at each site to add diversity. Should one species fail to yield fruit in a particular season, hopefully the other species will be unaffected. A variety of trees and shrubs provides food for wildlife over a longer period because the fruit from each species will mature at different times of the year.

A publication entitled "Sources of Planting Stock and Seed of Conservation Plants used in the Northeast" lists sources for tree and shrub seedlings. This publication can be obtained by contacting your local SCS office.

Table 1. Woody Species for Wildlife Management on Gas and Oil Well Sites.

<u>Species</u>	<u>Provides</u>	<u>Primary Users</u>
Autumn Olive*	Food and Cover	Turkey, Grouse, Deer, Bear, Fox, Raccoon, Small Mammals, Songbirds
Elderberry	Food and Cover	Same as above
Black Alder	Cover, Limited Food Value	Waterfowl, Grouse, Woodcock, Snipe, Songbirds
Apple	Food, Limited Cover	Deer, Bear, Grouse, Turkey, Raccoon, Small Mammals, Songbirds
Purple Osier Willow	Cover, Limited Food	Grouse, Songbirds, Muskrat, Beaver
Hawthorne	Food and Cover	Grouse, Turkey, Deer, Bear, Fox, Raccoon, Small Mammals, Songbirds
Sumac	Food and Cover	Grouse, Turkey, Rabbit, Deer, Songbirds
Dogwood	Food and Cover	Grouse, Turkey, Deer, Bear, Rabbit, Fox, Raccoon, Squirrel, Waterfowl, Small Mammals, Songbirds
Pine	Cover, Limited Food	Grouse, Turkey, Deer, Rabbit, Small Mammals, Songbirds
American Cranberry Bush	Food and Cover	Grouse, Turkey, Deer, Bear, Songbirds
Bicolor Lespedeza	Food and Cover	Quail, Dove, Turkey, Grouse, Deer, Songbirds, Small Mammals
Indigobush	Food and Cover	Quail, Dove, Turkey, Grouse, Deer, Songbirds, Small Mammals
Japanese Barberry	Food and Cover	Turkey, Grouse, Deer, Fox, Raccoon, Songbirds
Crab apple	Food and Cover	Grouse, Turkey, Songbirds, Deer, Fox, Raccoon, Small Mammals
Mountain Ash	Food, Limited Cover	Grouse, Songbirds, Turkey, Deer
Chinese Chestnut	Food, Limited Cover	Squirrels, Turkey, Deer
Sawtooth Oak	Food, Limited Cover	Squirrels, Turkey, Deer, Grouse, Quail, Songbirds, Bear, Raccoon, Fox

\*Autumn olive is classified as a noxious weed in several counties. Contact your local DNR - Wildlife Division office or SCS office for those counties in which autumn olive is banned.

### Selecting Grasses and Legumes

Establishing a good herbaceous cover is the primary objective for adequate erosion control of any land reclamation effort. However, species such as crown vetch, flatpea, and sericea lespedeza should be excluded from plantings where woody vegetation is used because they limit these species' growth and survival. Also, seed mixtures which include tall fescue will necessitate careful site preparation, i.e., scalping, prior to tree planting.

Mixtures suitable for planting on both level and less erodible areas and for steep sites are listed in Table 2.

### Selecting Trees and Shrubs

After determining the featured wildlife species for the well site, tree and shrub species must be selected to meet management goals. Several criteria must be considered prior to determining which species to plant.

1. Identify wildlife species other than the featured species which may use the site.
2. Identify food and cover requirements for all wildlife species involved and prepare a list of tree and shrub species that satisfy those requirements on a year-round basis.
3. Select trees and shrubs adapted to the local area.
4. Select woody species that will tolerate site conditions, i.e., soil type, fertility, moisture, pH, etc.



Table 2. Seed Mixtures for Revegetation.

Mixtures for Level (Less Erodable) Sites

Orchardgrass	12 lbs./acre
Ladino Clover	3 lbs./acre
Orchardgrass	12 lbs./acre
Birdsfoot Trefoil	10 lbs./acre
Timothy	6 lbs./acre
Birdsfoot Trefoil	10 lbs/acre
Ky. Bluegrass	20 lbs./acre
Redtop	5 lbs./acre
White Clover	2 lbs./acre
Deertongue Grass (Tioga)	8 lbs./acre
Birdsfoot Trefoil	6 lbs./acre
Weeping Lovegrass	1 lbs./acre
Deertongue Grass (Tioga)	15 lbs./acre
Japanese Millet	15 lbs./acre

Mixtures for Steep Areas

*Ky. 31 Tall Fescue	20 lbs./acre
Creeping Red Fescue	20 lbs./acre
Redtop	5 lbs./acre
*Ky. 31 Tall Fescue	30 lbs./acre
Birdsfoot Trefoil	10 lbs./acre
Flatpea (Lathco)	20 lbs./acre
Ky. 31 Tall Fescue	15 lbs./acre

\*Use endophyte-free Kentucky 31 Fescue seed, if available.

To insure that the trees and shrubs selected satisfy the goals and requirements of the management program, operators should consult a wildlife biologist. This step should be included in the planning process prior to purchasing or planting any woody vegetation.

#### Planting Schemes for Level (Less Erodible) Sites

There are several planting schemes shown in Figures 1, 2, and 3. Each band planting shown in Figures 1 and 3 should contain two parallel rows of trees or shrubs on a 7' x 7' spacing. Figure 2 shows a random planting scheme which is designed with 6 trees per clump.

Regardless of the planting scheme used, there should be no trees or shrubs planted closer than 20 ft. to the forest edge. In addition, there should be at least 20 ft. separating the double row plantings shown in Figures 1 and 3 and the clump plantings in Figure 2.

#### Planting Schemes for Steep Sites

Tree and shrub plantings for wildlife management purposes on steep slope sites can be described by two basic types.

1. Strip plantings.
2. Edge plantings.

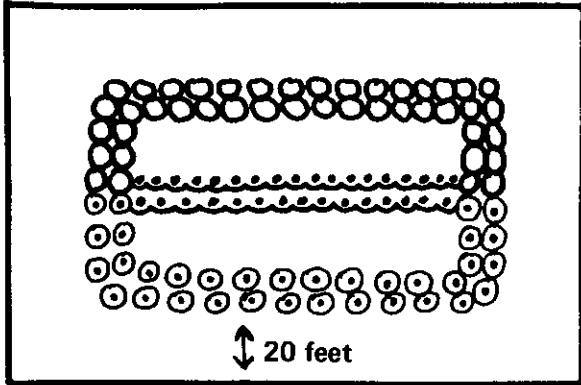
#### Strip Plantings

Strip plantings usually consist of one to three rows of shrubs to provide food, cover, and travel lanes. These strips should be planted along slope contour and connect undisturbed woodlands or other strips (Figure 4). Rows should be planted on no less than 5 foot centers. In addition to supplying food and cover, these strips provide wildlife, especially small game, with travel lanes across otherwise unbroken grassy areas.

# REVEGETATION DESIGNS FOR OIL GAS WELL SITES

Figure 1- Perimeter Pattern

Undisturbed Forest



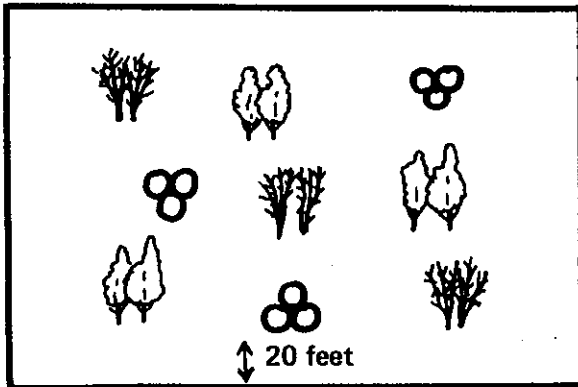
Silky Dogwood 

Tartarian Honeysuckle 

Crab Apple 

Figure 2- Random Pattern

Undisturbed Forest



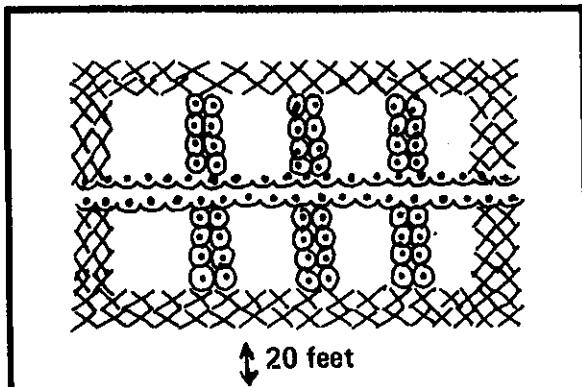
Silky Dogwood 

Washington Hawthorn 

Chinese Chestnut 

Figure 3- Block Pattern

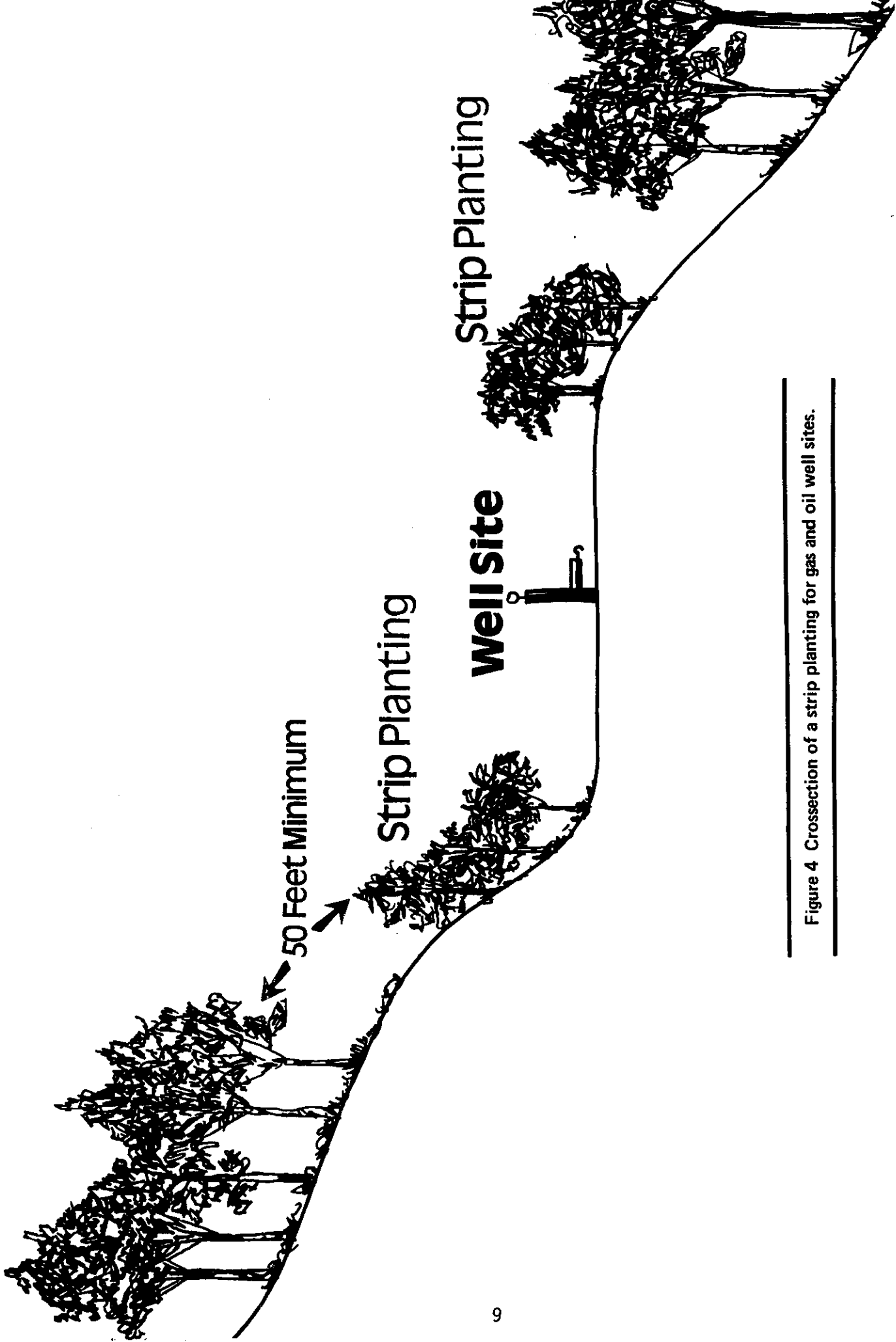
Undisturbed Forest



Crab Apple 

Chokecherry 

Tartarian Honeysuckle 



---

Figure 4 Crosssection of a strip planting for gas and oil well sites.

---

### Edge Plantings

Edge, or boundary plantings consist of one to three rows (on less than 5 foot centers) of shrubs planted along the border of the well site and undisturbed woodland (Figure 5). This method allows the remainder of the site to be kept free of volunteer vegetation that may hamper operation and maintenance of the well. To increase the effectiveness of this planting scheme, the undisturbed woodlands adjacent to the plantings should be selectively thinned to increase forest understory growth. These thinnings should extend back into the woodlands at least 50 feet but not more than 100 feet (Figure 6). When conducting the thinnings, any den trees or snags encountered should not be removed. Slash created by the thinnings should be randomly placed in piles for added cover.

### Site Preparation

If the site on which trees are to be planted is severely compacted, it is recommended that the soil be ripped or disked to decrease seedling mortality. If the herbaceous vegetation is too thick, it should be controlled prior to planting the seedlings. This control can be done by the application of a prescribed herbicide or by scalping away the vegetation where the trees are to be planted. The diameter of the scalped area should be at least 2 feet.

### Care of Seedlings

Immediately after seedlings are received, the bundles should be opened and the roots sprayed with water and then repacked. The seedlings should be kept in a cool site free of drafts until they are planted.

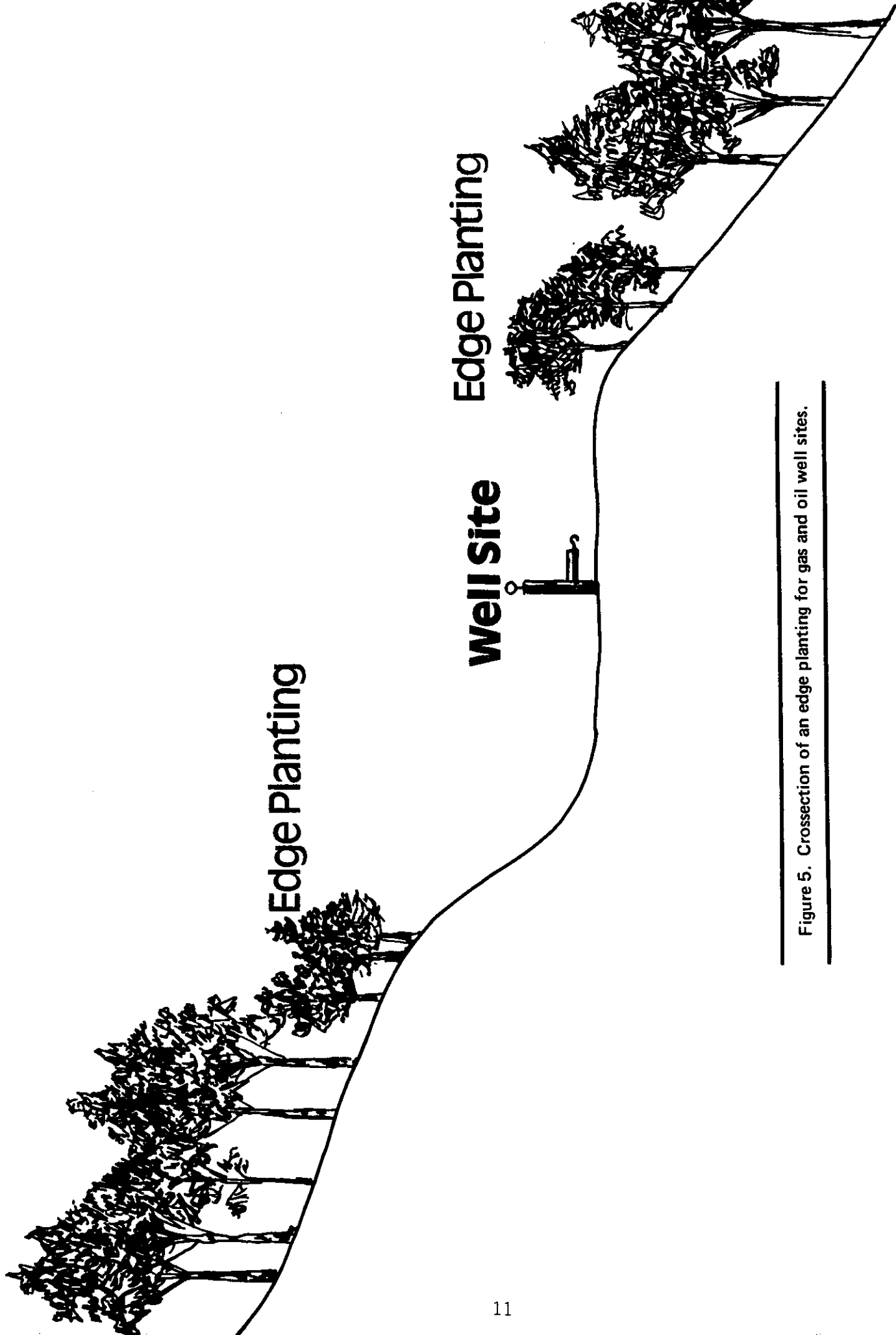


Figure 5. Crosssection of an edge planting for gas and oil well sites.

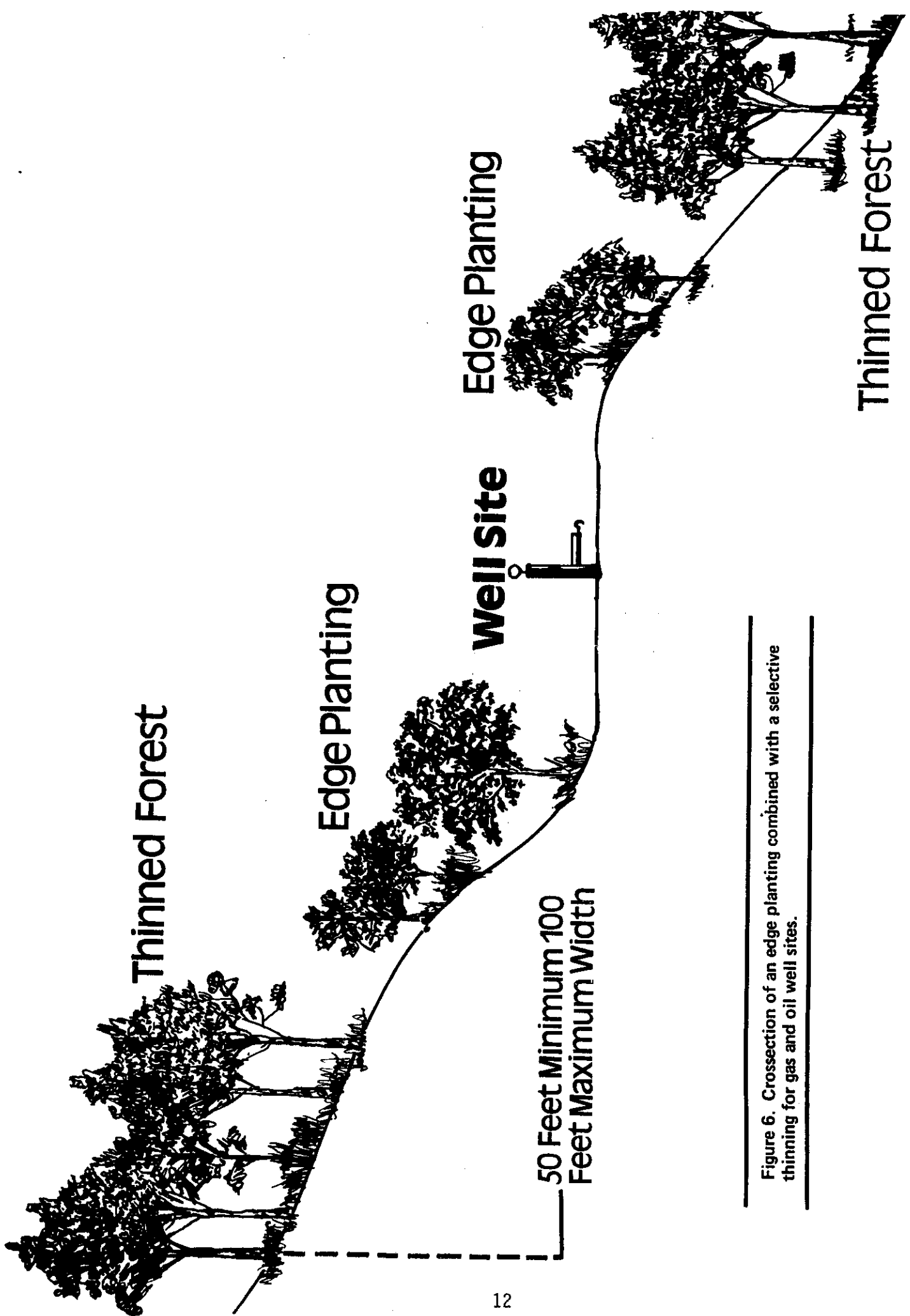


Figure 6. Cross-section of an edge planting combined with a selective thinning for gas and oil well sites.

If the seedlings cannot be planted within one week of delivery, they should be placed in a shallow "v" ditch, covered with soil to the root collar and sprayed with water.

#### Planting Seasons and Methods

Spring and fall are the only recommended tree planting seasons. The spring planting season (March 1 - May 15) is by far the better time to plant seedlings because the danger from frost heaving the soil is reduced and seedling survival is usually much better.

Planting of seedlings is done with either a dibble or mattock. During the planting process the seedlings should be carried in a canvas bag with moist peat moss. Care should be taken during the planting process to have all roots pointing downward. If the roots are longer than 8 inches, they should be cut back to this length. The seedling should be planted deep enough to just cover the root collar and the soil should be pressed firmly around the root system leaving no air pockets.

The vast majority of sites should not require any application of lime or fertilizer. The species listed in Table 1 are tolerant of a wide variety of soil fertility and pH levels.

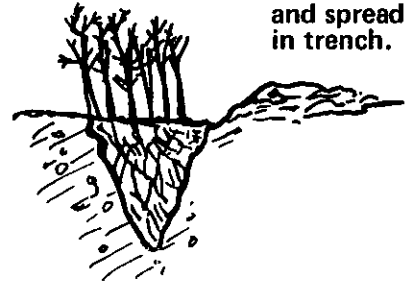
The success or failure of an economical wildlife management program on gas and oil well sites ultimately depends upon the survival of planted seedlings. Improper storage, handling, and planting techniques are the primary source of seedling mortality. Proper methods are illustrated in Figures 7, 8, 9, and 10.



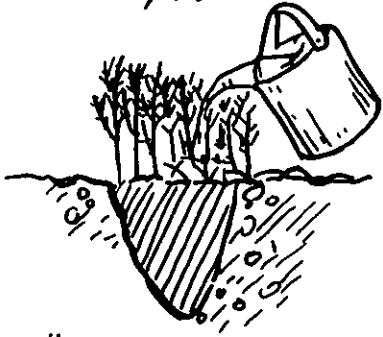
1. Dig V-shaped trench in moist shady place.



2. Break seeding bundles and spread out evenly in trench.



3. Fill in loose soil and water well.



4. Complete filling in soil and firm with feet.

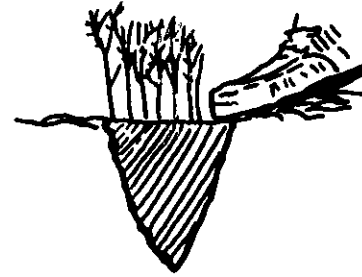


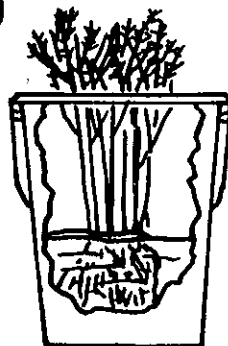
Figure 7 Proper Heeling in Procedure (Adapted from Rafail and Vogel, 1978)

**CORRECT**



In canvas planting bag with moist peat at bottom.

In bucket with sufficient water to cover roots.



**INCORRECT**

In hand-roots dry out.



Figure 8 Handling Seedlings in the Field (Adapted from Rafail and Vogel, 1978)

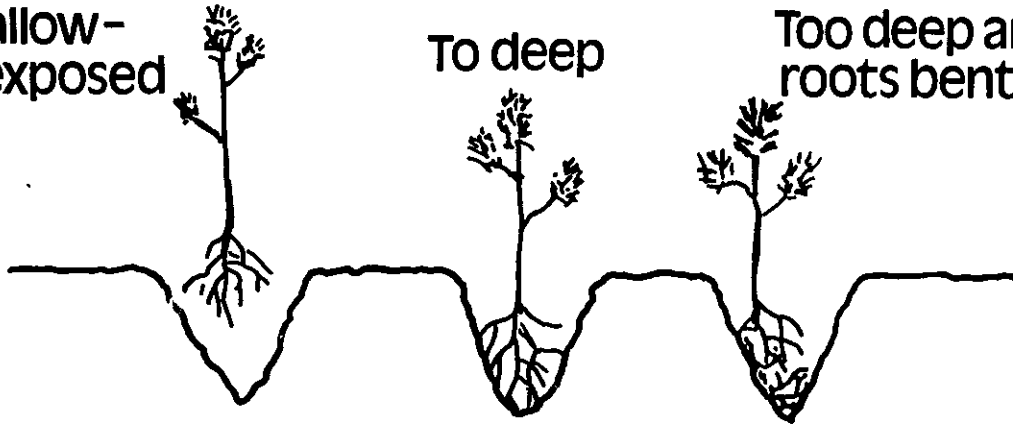
---

**INCORRECT**

Too shallow -  
roots exposed

To deep

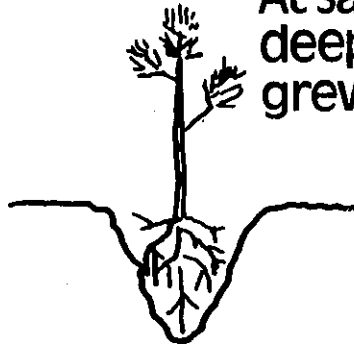
Too deep and  
roots bent



---

**CORRECT**

At same depth or 0.5"  
deeper than seeding  
grew in nursery

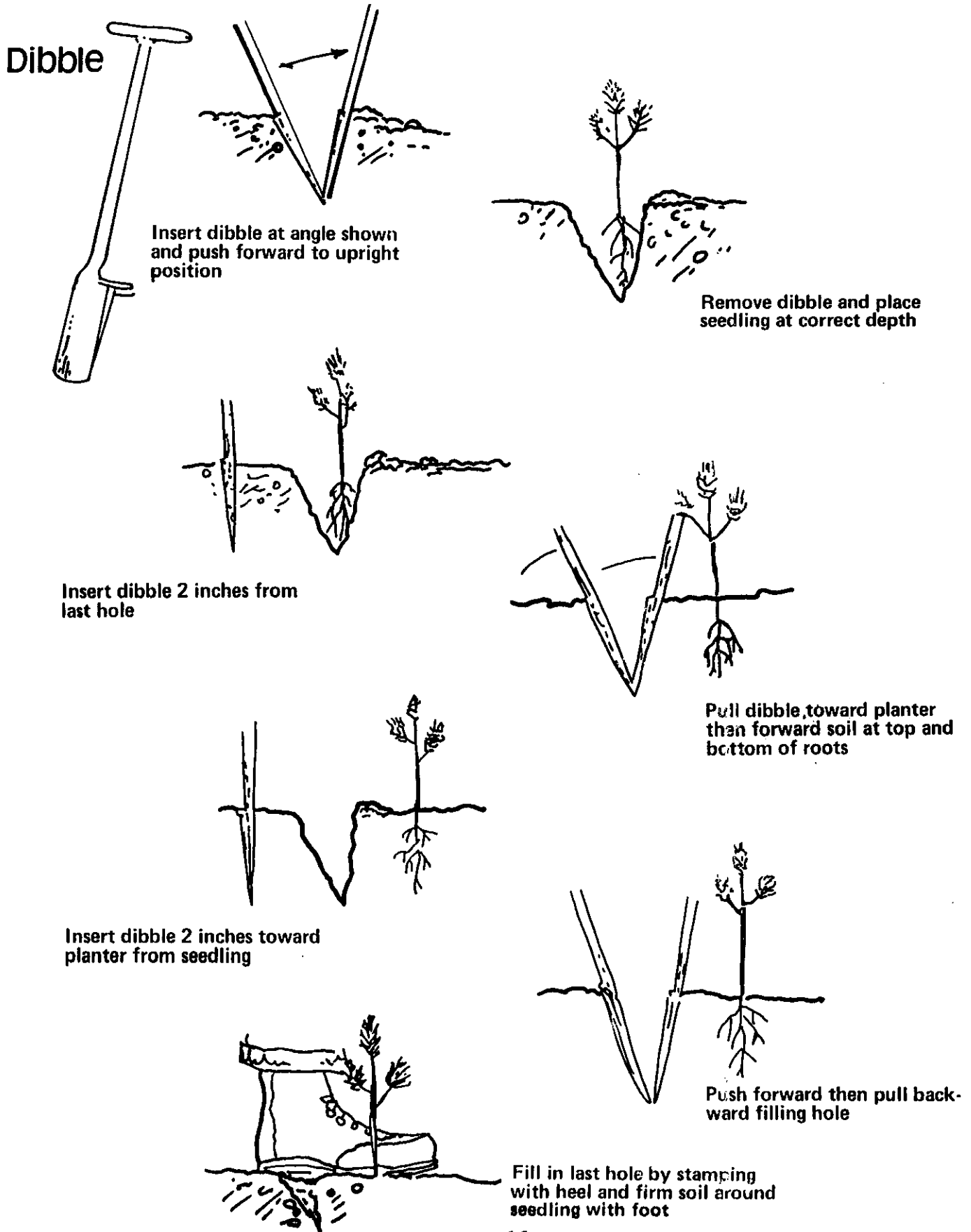


---

Figure 9 Correct and Incorrect Planting Depths (Adapted from Rafail and Vogel, 1978)

---

Figure 10 Proper Dibble Planning Method (Adapted from Raffaill and Vogel, 1978)



### Supplemental Features

Additional features may be included on the site to increase its value to wildlife. One example would be to construct brush piles along the woodland edge which will provide escape cover for a variety of wildlife (see Information Sheet No. 1 showing suggested methods for brushpile construction). Water holes, even in the form of a shallow depression left in the ground, will greatly benefit wildlife and are inexpensive to build.

The effectiveness of the overall planting scheme can be enhanced by selectively thinning the adjacent undisturbed woodland to increase understory growth. Information Sheet No. 2 describes one way in which valuable edge can be created through the creation of a CUT-BACK BORDER. Consideration should be given to the creation of such edges along access roadways as well as adjacent to well sites.

### Summary

With proper planning, gas and oil well sites can provide valuable wildlife habitat. In some areas, such as unbroken forestland, these sites may furnish critical habitat, i.e., brood range, that would not otherwise occur. Properly managing these sites will benefit local wildlife populations while also attracting migratory species. Well sites developed for wildlife are not only more aesthetically pleasing, but also provide public relations benefits and even increased land values.

If you would like additional information on basic wildlife management techniques, the attached bibliography provides several sources.

## BUILDING BRUSHPILES FOR WILDLIFE

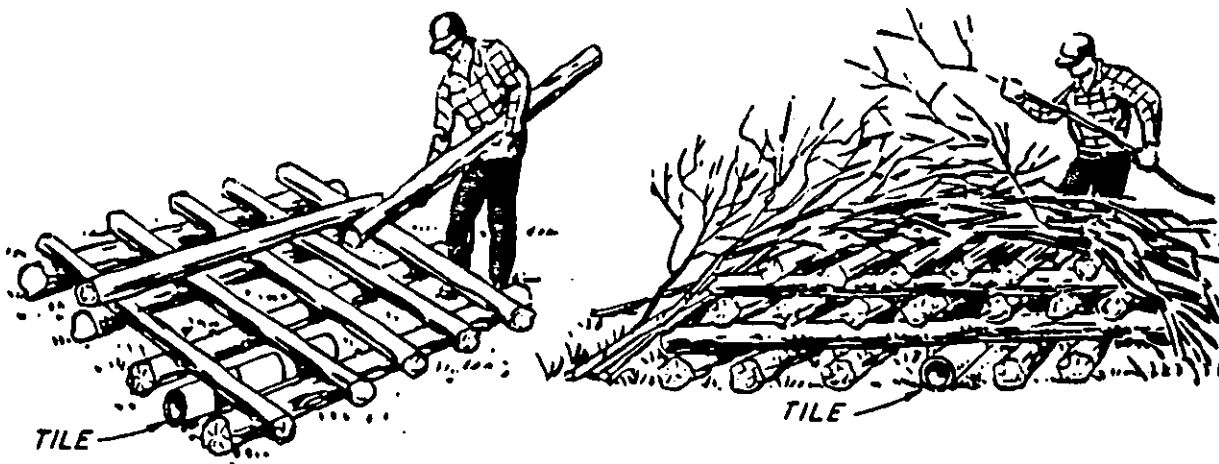
Brush piles make good cover areas for cottontail rabbits, Bob White quail and several songbirds. If constructed properly they will last for several years.



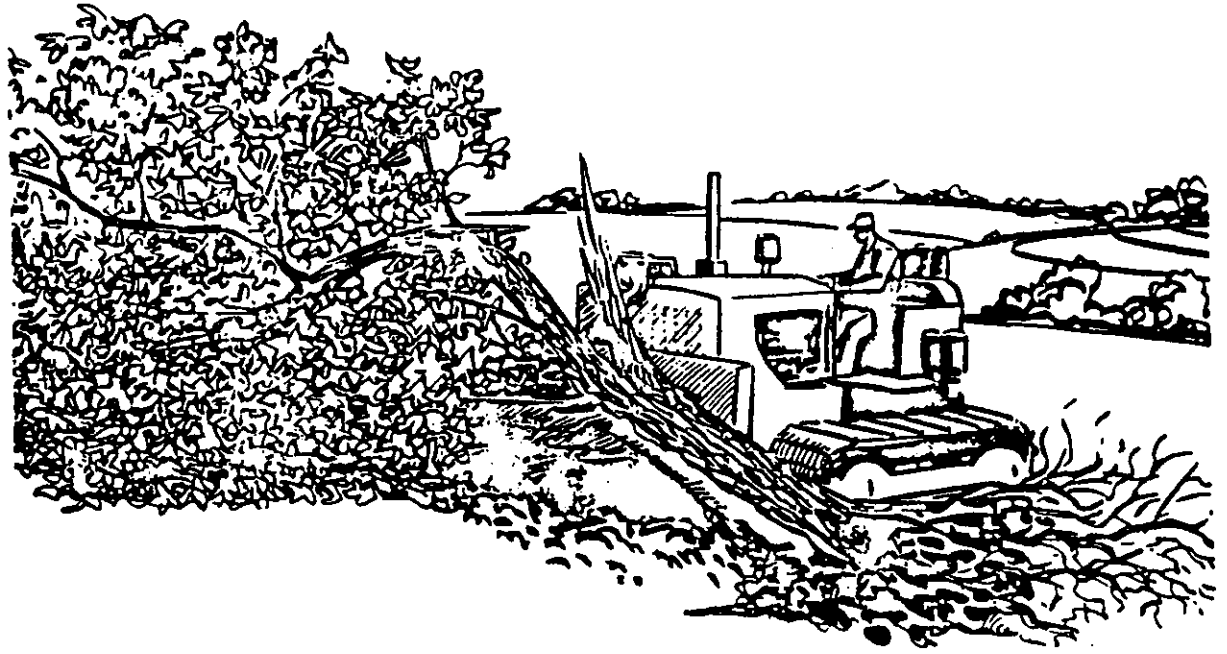
The raw materials are at hand when clearing or thinning is done in fence rows, woodland borders or other wooded areas. Old and discarded fence posts will serve as good base materials.

Build brush piles at the edges of wooded areas, near food patches, and watering facilities.

The small logs or large boughs can be erected in a log cabin-like structure, the larger diameter boughs should be on the bottom. The coarse (4" and larger) boughs will provide access and protection in the brush pile, especially if they are crisscrossed. The fine boughs and branches will serve as a roof for added protection. Additional boughs, branches, and fine brush can be added to the structure each year. The size may vary, however, a 6'X6' should be considered as minimum. Some of the base logs can be as close as 3 inches apart to provide the needed safety for rabbits.



The brush pile can be made more elaborate, if desired, by placing 6 to 8" field tile underneath. This provides rabbits better protection from the weather. Place two or three tiles end to end. Some landowners construct square box tunnels of scrap lumber for this purpose.

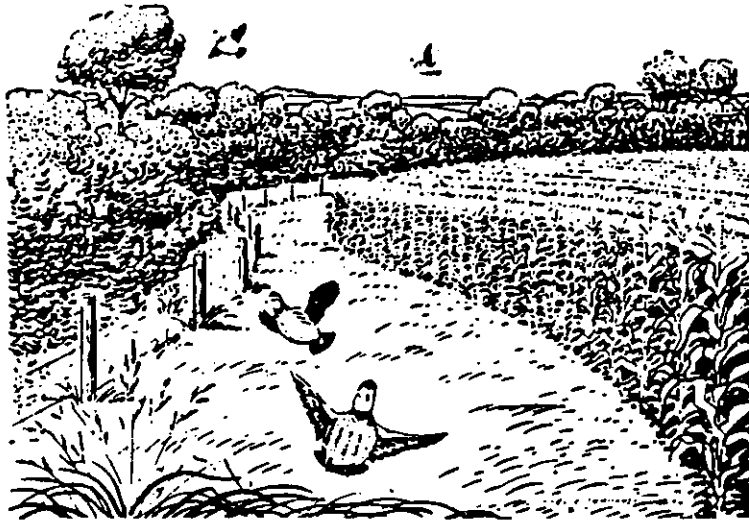


Brush piles are sometimes built by the bulldozer when ponds are being built. Trees and brush are removed and pushed away from the construction area. This excellent wildlife cover will last a long time if not burned. The disturbed area should be reseeded.

A simple, convenient brush pile needed in field borders, woodland edges, and odd areas can be created by cutting a large weed tree and let it lay. Vines, weeds, and briar tangles will grow up in and around the felled crown. Quail, rabbits, and many species of songbirds will make use of this excellent cover.

Technical assistance is available from the local USDA, SCS office for wildlife area improvement if planting stock and guides are needed.

## FIELD BORDERS FOR WILDLIFE



FIELD BORDER STRIP

A border is an edge between two types of land use (pasture land and woodland for example). Most wildlife occurs where the types of food and cover which it needs comes together.

Abrupt changes between these land uses are not always desirable. Plan what vegetation is needed, establish it, and maintain this desirable condition. Areas that provide simultaneous access to wildlife's environmental needs is the object of field border planning.

Improved borders are created in two ways:

1. Cut-Back Border Method: This is a strip at the edge of woodland converted from trees to other types of vegetation by cutting.
  - a. For best results this border should be about 50 feet wide (20 feet is the absolute minimum.)
  - b. Method - Cut selected trees and pile brush next to the woodland side (could let the brush lay), using these guides:
    - (1) First 20 feet of border - cut all plants more than 1 inch in diameter.
    - (2) Second 20 feet - cut all plants over 2 inches in diameter.
    - (3) Next 10 feet - cut all plants over 4 inches in diameter (unless a tree exists that is providing a desired food.)

NOTE: This method will provide a transition of vegetative covers; however, cutting all plants more than 1" diameter in the strip will also work.

- c. Desirable plants to leave - Berry brambles, the viburnum, rhododendrons, sumac, dogwoods, grape, and other shrubs valued for beauty and wildlife.
- d. Maintenance - When the trees and shrubs in the outer part of the border form a canopy at about 15 feet, then the process should be repeated.



## Bibliography

- Allen, D. L. 1962. Our Wildlife Legacy. Funk and Wagnalls, N.Y.  
422pp.
- Gabrielson, I. N. 1941. Wildlife Conservation. MacMillan. N.Y.  
250pp.
- Leopold, A. 1933. Game Management. Charles Scriber's Sons, N.Y.  
481pp.
- Smith, R. L. 1966. Ecology and Field Biology. Harper and Row, N.Y.  
686pp.
- Tippenssee, R. E. 1948-1953. Wildlife Management, McGraw-Hill, N.Y.  
2 Volumes
- Wildlife Society. 1971. Wildlife Management Techniques. Edwards  
Brothers, Inc., Ann Arbor, MI. 633pp.

APPENDIX 1  
WEST VIRGINIA DEPARTMENT OF NATURAL RESOURCES  
WILDLIFE RESOURCES DIVISION  
FISH AND WILDLIFE COORDINATION BIOLOGISTS  
AND THEIR DISTRICT COUNTIES

Kerry Bledsoe Office: Fairmont (366-5880)

Lewis	Marion	Ohio
Tyler	Pleasants	Marshall
Doddridge	Ritchie	Wetzel
Gilmer	Preston	Monongalia
Harrison	Hancock	
Taylor	Brooke	

Roger Anderson, Supervisor Office: Elkins (636-1767)

Barbour	Mineral	Webster
Upshur	Hampshire	Randolph
Tucker	Morgan	Pocahontas
Grant	Berkeley	Pendleton
Hardy	Jefferson	Braxton

Curtis Taylor Office: Beckley (255-5106)

Nicholas	Wyoming	Summers
Fayette	McDowell	Greenbrier
Raleigh	Mercer	Monroe

Jay Jeffreys Office: Milton (743-6119)

Calhoun	Kanawha	Lincoln
Clay	Logan	Mason
Boone	Putnam	Jackson
Cabell	Mingo	Wood
Roane	Wayne	Wirt

APENDIX IIUSDA, SOIL CONSERVATION SERVICEWest Virginia Field Offices

<u>County</u>	<u>Contact Person</u>	<u>Phone</u>	<u>City</u>
BARBOUR	Wayne M. Maresch	457-4517	Philippi
BERKELEY	Patrick D. Bowen	263-7559	Martinsburg
BOONE	Harold L. Matlick	824-3530	Hamlin
BRAXTON	John R. Cox	364-5103	Gassaway
BROOKE	Samuel Sheets	737-0641	Wellsburg
CABELL	Michael J. Marks	736-0196	Huntington
CALHOUN	Randall C. Jones	354-7913	Grantsville
CLAY	John R. Cox	364-5103	Gassaway
DODDRIDGE	Eugene Friend	873-1631	West Union
FAYETTE	F. William Harris	574-3740	Fayetteville
GILMER	Larry W. Greynolds, Jr.	462-7321	Glenville
GRANT	Thomas L. Vance	257-4068	Petersburg
GREENBRIER	Albert E. Beaty	645-6455	Lewisburg
HAMPSHIRE	Garry B. Morfoot	822-5902	Romney
HANCOCK	Samuel Sheets	737-0641	Wellsburg
HARDY	Edward A. Kesecker	538-2825	Moorefield
HARRISON	Quentin P. Bennett	624-7211	Mt. Clare
JACKSON	Larry G. Sturm	372-6351	Ripley
JEFFERSON	Lowell E. Wilks	725-3471	Ranson
KANAWHA	Jerry N. Fox	347-5121	Charleston
LEWIS	James S. Hill	269-6200	Weston
LINCOLN	Harold L. Matlick	824-3530	Hamlin
LOGAN	Harold L. Matlick	824-3530	Hamlin
MARION	David F. Burns	363-4570	Fairmont
MARSHALL	James F. Ali	845-9716	Moundsville
MASON	Richard S. Gray	675-4170	Pt. Pleasant
MCDOWELL	Samuel E. DePue	487-1405	Princeton

APENDIX IIUSDA, SOIL CONSERVATION SERVICEWest Virginia Field Offices

<u>County</u>	<u>Contact Person</u>	<u>Phone</u>	<u>City</u>
MERCER	Samuel E. DePue	487-1405	Princeton
MINERAL	Thomas D. White	788-3843	Keyser
MINGO	Harold L. Matlick	824-3530	Hamlin
MONONGALIA	C. Edward Talbott	291-4385	Morgantown
MONROE	Glen A. Betler	772-3093	Union
MORGAN	Margaret J. Reese	258-1861	Berkeley Springs
NICHOLAS	Paul Q. Mullens, Jr.	872-1961	Summersville
OHIO	James F. Ali	845-9716	Moundsville
PENDLETON	Al Stewart, Jr.	358-2367	Franklin
PLEASANTS	John P. Carr	758-2173	Middlebourne
POCAHONTAS	Dave Crickenberger	799-6376	Marlinton
PRESTON	Mark L. Malone	329-1921	Kingwood
PUTNAM	Sherwood A. Morgan	586-2592	Winfield
RALEIGH	David A. Darnell	253-9673	Beckley
RANDOLPH	Larry J. Casseday	636-6808	Elkins
RITCHIE	Herbert G. Andrick	643-2136	Harrisville
ROANE	Delmas E. Carr	927-1023	Spencer
SUMMERS	S. Alan Boone	466-2033	Hinton
TAYLOR	Robert W. Schnably	265-1094	Grafton
TUCKER	Rex T. Rexrode	478-3949	Parsons
TYLER	John P. Carr	758-2173	Middlebourne
UPSHUR	Michael J. Gasper	472-0884	Buckhannon
WAYNE	Michael J. Marks	736-0196	Huntington
WEBSTER	Paul Q. Mullens, Jr.	872-1961	Summersville
WETZEL	John P. Carr	758-2173	Middlebourne
WIRT	Camden H. Campbell	275-6561	Elizabeth
WOOD	Freddie L. Fields	420-6670	Parkersburg
WYOMING	David A. Darnell	253-9673	Beckley

**STATEMENT OF POLICY REGARDING THE  
EQUAL OPPORTUNITY TO USE FACILITIES  
AND PARTICIPATE IN PROGRAMS**

It is the policy of the Department of Natural Resources to provide its facilities, accommodations, services and programs to all persons without regard to sex, race, color, age, religion, national origin, or handicap. Proper licenses/registration and compliance with official rules and regulations are the only sources of restrictions for facility use or program participation.

The Department of Natural Resources is an equal opportunity employer.