

WORK PLAN
OF THE
MONROE COUNTY SOIL CONSERVATION DISTRICT

ALBIA, IOWA

June 1944

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MONROE COUNTY SOIL CONSERVATION DISTRICT
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A. PURPOSE

The District Program sets forth the existing land use, erosion and soil maintenance problems. It also lists the long time objectives of the district.

This work plan states rather specifically what the District Governing Body proposes to do to obtain these objectives. It outlines, in so far as possible, how and by whom this work is to be done. Only those problems with which the district is prepared to deal are being considered at this time. A calendar of work covering a six-month period is included in the appendix.

Local farm leaders, representatives of state and federal agencies, and others interested in soil conservation, have assisted the Commissioners in the development of this work plan. Many of these people will also take an active part in carrying on the various phases of the work outlined.

B. ADMINISTRATION

The people of this district, acting through their elected representatives, the District Commissioners, will be responsible for the administration of the district. They will determine the broad operating policies, and coordinate the efforts of those who are to assist them. They will determine the type of program which is to be followed, and farm conservation plans which are prepared will be subject to their approval. All requests for the assistance of the district will be directed to the Commissioners, who will either approve or disapprove these requests and establish a priority for granting assistance to the different groups. The Commissioners may delegate certain administrative matters to others as they see fit and they may call upon community leaders to represent areas in the county, or to act as Assistant Commissioners.

C. PLAN OF ACTION

Two general methods will be used to help farmers place conservation measures on the land; first, the application of one or more simple conservation practices, and second, the application

of complete conservation plans on farms of interested cooperators. In both methods the Commissioners will give preference to small community groups of farmers rather than to individuals.

1. Application of Simple Conservation Practices.

The extensive use of simple conservation practices will serve to acquaint a large number of farmers with one or more of the easily applied practices; such as contouring, grassed waterways and pasture improvement. The experience with contouring and other practices will help the farmer to determine whether or not he wishes to adopt a complete conservation plan.

The use of such practices will also assist prospective district cooperators to make progress in conservation prior to the time technical personnel assigned to the district are able to help them develop complete conservation plans. Contouring will be particularly stressed because it is relatively simple to apply and is basic in most conservation programs.

The district will look to the County Extension Director and the Extension Service for considerable assistance in this phase of the work. They will also appreciate the assistance of farm leaders and other agencies in carrying out this program.

2. The Development and Application of Farm Plans.

The development of farm plans involves several steps which will be discussed separately.

- (a) Interest meetings and applications for assistance.

The first step will be a group meeting, usually referred to as an interest meeting, either before or after the neighborhood group has applied to the Commissioners for conservation surveys and assistance in developing plans for their farms. Ordinarily the interest meeting will be held before the group

has formed as such. However, some neighborhoods may be sufficiently interested to organize as a group before a meeting can be held. If possible, one or more of the Commissioners will attend and participate in the interest meetings. The district will look to the County Extension Director to conduct interest meetings and to help farmers form planning groups. If, after the meeting the farmers wish to proceed, they will make their wishes known to the Commissioners and file an application for assistance. The application is to bear the signatures of all who are interested.

The Commissioners will review such applications as they are submitted and will determine the priority of assistance to the several groups. Establishment of priority will be based upon the best distribution over the county as a whole rather than upon the order in which applications are received. Other factors to be considered are; interest, the seriousness of the problem and the size and compactness of each group. A group of 8 to 12 is the most desirable. It is also preferred that the group consist of adjacent farms.

(b) Conservation surveys and land use classes.

After the group application has been approved by the Commissioners, a conservation survey showing slope, soil type and erosion conditions, will be prepared for the area by a trained soils technician. Maps of this survey will be prepared in color to indicate classes of land based on the conditions found by the surveyor. Each farmer will be furnished with a copy of the conservation survey of his farm. He will use this map in developing his conservation program. It will also become a part of his farm plan and can be used for future reference.

(c) Farm planning methods.

As has been indicated, assistance in the development of conservation farm plans will be provided for community groups. This is the policy of the district and will be followed unless the Commissioners determine that it is to the best interest of the district to establish a single farm demonstration. Such single demonstrations will be used only to create interest and stimulate future group development. Much of the planning work will be accomplished in a series of three or four planning meetings.

These meetings will consist of a series of discussions of the various conservation problems and consideration of possible solutions. Following these discussions, each farmer will plan the control measures which are required and applicable to his particular farm by indicating his intentions on his working copy of a farm map.

It will be necessary for the farm planner to spend some time with each member of the group out on their respective farms in order to complete the details of the plans. After the plans are complete they will be incorporated into cooperative agreements between cooperative farmers and District Commissioners.

(d) Putting the farm plan into effect.

Each farmer will assume the responsibility for putting his farm plan into effect. Men assigned to the district will furnish cooperating farmers with technical help as is needed to apply the farm plan to individual farms. This will require considerable individual help during the first and second years. Ordinarily the farmer will be sufficiently familiar with his layout and with methods of layout to continue after the second year without much help. It is also anticipated that the work load with new cooperators will be such that technical help after the second year will be limited. Where-

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ever possible the work in establishing farm plans will also be carried on with groups of farmers.

Considerable time may necessarily elapse between the approval of an application for assistance and the starting of farm planning. During this period the Commissioners urge such groups to start the use of single practices which are basic and which will fit into the farm plan to be made later.

D. EDUCATIONAL ACTIVITIES

The District Commissioners desire the full cooperation of the press, schools, civic groups, Soil Conservation Service, Agricultural Adjustment Administration and other agencies, in carrying on the educational phases of the district program. However, in accordance with the terms of the Memorandum of Understanding with the Extension Service, the district will look to the Extension Service and to the Extension Director for leadership in this activity.

The district will make use of the various methods of carrying on educational work. They will make extensive use of the press, thus keeping the public informed of the progress of soil conservation work and of those who are participating in the program.

Meetings for the purpose of discussing soil conservation problems and conservation measures will be used to inform people of the county regarding district work and how assistance from the district may be secured. In order to save time and travel, a discussion of soil conservation will be combined with other meetings whenever feasible. The small community type of meeting will be emphasized.

Demonstrations will be planned and used frequently. Both method demonstrations and result demonstrations are useful in connection with soil conservation work. Other methods to be used will include circular letters, window displays & exhibits, as well as personal contacts.

Probably the most effective recommendation for soil conservation is the enthusiasm of those who have successfully used these practices. This fact will be considered when planning press releases, tours, demonstrations and exhibits.

E. COOPERATION WITH OTHER AGENCIES

In order to make the greatest progress and achieve maximum soil

conservation, District Commissioners will need the support of all other groups in the county. As the work of the district develops and is extended, the Commissioners hope to establish a basis of cooperation with many organizations who are in a position to lend support to the district program. At this time we will mention some of the cooperative projects which will be undertaken in the near future.

Farm Bureau

The part the Farm Bureau and the Extension Service will have in district activities has been worked out and is the subject of a Memorandum of Understanding. As time goes on the Commissioners hope to further strengthen this relationship.

Schools

The County Superintendent of Schools has been interested in the problem of soil conservation from the start of district organization. He has also indicated the interest of rural schools in the problems of the soils district. While a detailed plan of cooperation has not been worked out at this time, it is anticipated that excellent working relationships will develop and that such an arrangement will result in the more rapid development of the work of the district and will naturally benefit the people of the county. Certainly the rural schools provide an important starting point in the development of a program of so great an importance to the rural people of the county.

Vocational Agricultural Developments

There are many possibilities for effective cooperation between the vocational agricultural departments and the soils district. These include conservation projects, class exercises in farm conservation planning and assistance in survey and layout work. These and other projects will be developed as time permits.

Rural Churches

The district fully appreciates the influence of the churches of the county and desires to work closely with them, particularly in the development of the educational phases of soil conservation work.

Agricultural Adjustment Administration

The county AAA has encouraged the use of conservation practices

for a number of years through conservation practice payments. They have also supported district movement and have given material assistance during the organization of the Soil Conservation District. Members of the AAA staff helped develop the program and work plan of the district. The district expects to cooperate with them in setting up and carrying out various practice programs. In order to secure maximum conservation on the land, every effort will be made to recognize their mutual problems and to coordinate the efforts of AAA and the district.

Civic Organizations

The district plans to ask the civic organizations of the county to assume responsibility for carrying on educational activities in soil conservation among residents of the city. These organizations will also be invited to sponsor conservation activities among such groups as FFA and 4-H Clubs.

Other Groups

There are many other individuals and organizations in the county such as Farm Security, County Board of Supervisors and others who can give fine support to the cause of soil conservation. The Commissioners hope and expect to cooperate with these groups as problems develop which require joint action to find the appropriate solutions. Details of such cooperation will be worked out which are mutually satisfactory as the occasion arises.

F. CONSERVATION MEASURES WHICH ARE TO BE USED IN THE DISTRICT

One of the basic problems with which the district expects to deal is that of securing adjustment in land use. As has been indicated, the district expects the technical staff to assist in the development of land use recommendations based upon the soil survey and capability maps. The Commissioners of the district will encourage such adjustments in land use as are necessary to bring the use of the land in line with the capability of the soil.

After the land use adjustments are determined and secured, the district will encourage the cooperators and other residents of the district to adopt such soil building practices and conservation measures as are needed to bring each acre of land, either pastureland, cropland or woodland, into a high state of production and the most profitable system of agriculture. In line with this policy the following recommendations have been developed.

Pasture Land

The following pasture recommendations provide for the improvement of existing pasture land, for the seeding of new pastures, and for the production of the necessary rotation and supplemental pasture. The permanent and supplemental pastures should be produced in such combinations and proportions as to provide adequate and continuous grazing over a long season.

Renovation of Old Bluegrass Pastures

The procedure to follow in the improvement of a permanent bluegrass pasture depends to a large extent upon the condition of the pasture, including the stand of grasses, soil type and fertility level. Pastures which are suitable for renovation should be relatively free from brush and trees, not too steep to be thoroughly worked with a disc, and have a sufficient stand of bluegrass to be worth saving. Usually only a portion of the pasture consisting of from 5 to 10 acres should be treated each year. The steps to consider in improving this kind of pasture follows:

1. Lime in the fall.
 - (a) Graze closely or clip in the fall.
 - (b) Test to determine the amount of lime required.
 - (c) Spread lime at the rate indicated.
 - (d) Disc on the contour, mixing the lime with the soil.
2. Seed and fertilize very early in the spring (March or April).
 - (a) Apply 250 pounds of 0-20-0 per acre, or its equivalent, and barnyard manure if available.
 - (b) Disc very thoroughly.
 - (c) Seed a mixture of legumes, including sweet clover, red clover, alsike clover and lespezeza (inoculate).

- (d) Include grasses in the mixture if needed, using timothy, red top and bluegrass.

3. Management.

- (a) Protect renovated pastures from grazing until July 1, then graze moderately until September 1, at which time livestock should be removed.
- (b) Clip when necessary to control weeds.
- (c) For maximum returns provide supplemental pasture during periods when the productivity of permanent pasture is low.

Use of Lespedeza in Permanent Bluegrass Pasture

If the pasture is too steep to work with a disc, or for some other reason is inaccessible, then a seeding of lespedeza is recommended. This seeding should be made in January or February and on areas where the covering of grass is thin or has been closely grazed the previous season. No seedbed preparation is required. Lespedeza may also be seeded to advantage in pastures which are to be renovated at some later date. Such seeding will result in some improvement in the quality and quantity of forage, until such time as complete renovation may be accomplished.

Small Grain and Lespedeza as a Pasture Crop

Winter grain such as wheat or balboa rye, or oats seeded with lespedeza in the spring, provide an annual pasture crop which is quite productive and which provides forage during midsummer when other pastures are dried up. The small grain-lespedeza may be continued on the same field for a number of years if the field is seeded to small grain each year. The lespedeza will ordinarily mature enough seed to maintain the stand after the first year. If this program is to be followed it is important that the lespedeza is not covered too deeply at the time the grain is planted. The small grain may be seeded and covered by a light disking or by means of a field cultivator. The application of 0-20-0 is recommended each year at the time the grain is seeded. Lespedeza will also respond to the application of limestone.

Establishing New Pastures

The following steps are important in establishing a new pasture or in reseeding a permanent pasture which does not have a stand of grass worth maintaining:

1. Plow on the contour, apply lime if needed and crop one year if not too steep. Seed oats the following year with pasture seeding.
2. If slope is very steep, apply lime 6 months ahead, disc, plow and seed directly to oats and pasture mixture.
3. Only a half seeding of oats should be used after seedbed has been thoroughly prepared. An application of 200 to 250 pounds of 0-20-0 should be made at time of seeding, preferably early in April.
4. The pasture mixture should include legumes and grasses as follows:

Legumes: Sweet clover, red clover, alsike clover, alfalfa and lespedeza.

Grasses: Bromegrass, timothy, red top and bluegrass. The nurse crop should be pastured off or cut early for hay.

All tillage should be on the contour and if slopes are very steep it may be desirable to plow and reseed alternate strips in two successive seasons.

Bromegrass-Alfalfa Pasture

Bromegrass-alfalfa pastures are the most productive and most palatable of any of the pastures which are produced in this area. For maximum production of this type, pastures should be seeded on well drained soil of from medium to high fertility. After this pasture has once become established it is very resistant to drouth. The soil must be well supplied with lime. If the soil is acid, lime should be applied at least six months previous to seeding. There are three main ways of seeding alfalfa-brome. If moisture conditions are favorable and grasshoppers are not numerous, both crops may

be seeded in the fall. August seeding appears to be most satisfactory if fall seedings are made. A well prepared seedbed is very important; it should be thoroughly worked and compacted. The seed should be covered lightly. An application of from 200 to 300 pounds of 0-20-0 per acre is recommended at the time of seeding. A top dressing of manure is very beneficial.

If it is desired to favor the brome grass seeding in order to hasten seed production, the brome grass may be seeded in August and the alfalfa seeding made the following spring, the alfalfa being covered in the spring by means of a corrugated roller, harrow or weeder.

This method gives the brome grass a start on the alfalfa, and it is thus able to compete more successfully during the early years of the stand.

In seasons when there is not sufficient moisture to make a fall seeding, or if the grasshoppers are numerous, spring seeding of both the alfalfa and brome is recommended. Very early spring seedings are preferable. The nurse crop should be very-light and either grazed off or clipped before maturity.

Cropland

The following general practices are recommended for cropland in the district:

- (a) Rotations should be selected which are well adapted to soil conditions, and to the type of farming which is to be followed. Most rotations will include one or two years of clean tilled crops and a year of small grain. All rotations should include one or more years of legume or legume-grass mixtures. A chart with recommended rotations is included in the appendix and will serve as a guide.
- (b) Limestone should be applied to correct acidity.
- (c) Barnyard manure and crop residues should be carefully saved and used. In no case should crop residues be burned. Green manure crops should be used frequently.

(d) Phosphate and other fertilizers should be applied where experience indicates they are needed. Generally, fertilizers will give the best results on limed land. The equivalent of 200 pounds of 0-20-0 per acre is recommended once in the rotation and should be applied to the oats at the time legume seedings are made.

(e) Special erosion control practices should be used on ground which has more than 3 percent slope. Contouring is adapted to use on slopes from 3 to 12 percent. However, it is most effective on slopes from 3 to 6 percent. Strip cropping in which alternate strips of meadow are grown between alternate strips of grain or corn, is much more effective than contouring in preventing erosion, and should be considered particularly on long slopes or slopes of more than 5 percent. Terracing is adapted to long slopes with a slope range of from 3 to 8 percent.

Grassed waterways are recommended in all fields and should be of sufficient width to carry the flow of water from the area drained. Waterways are most effective when the bottom is broad and flat and the sod is left well up on each side of the waterway.

Farm Ponds

Farm ponds provide an excellent source of livestock water if properly planned and constructed. The recommendations for the construction of farm ponds follows:

- (a) The outlet should be adequate to handle the flow of the watershed area involved. A diversion dyke emptying the overflow on a well sodded area is adequate for small drainage areas.
- (b) The entire area draining into the pond should be maintained in grass. In no case should barn lots drain into farm ponds.
- (c) All farm ponds should be fenced and livestock excluded. A pipe should be installed before the fill is made and a water tank placed below the dam.

- (d) Adequate freeboard should be provided above the level of the overflow.
- (e) Slopes of the fill should be at least 3 to 1 on the upstream side and 2 to 1 on the downstream side. The fill and disturbed area should be mulched and seeded as soon as practical after construction is completed.

Gully Control

The recommendation for the control of gullies is dependent upon so many variable factors that no attempt will be made to include specific recommendations in this work plan. It will be the policy of the District Commissioners to provide assistance with these problems as they arise, and first consideration will be given to control measures which may be used on the drainage area contributing to the flow into the gully.

Drainage

Consideration will be given to drainage problems encountered on the individual farms and to drainage problems of larger groups, either organized district or unorganized groups. The district will provide such technical assistance as is available in preparing surveys and making recommendations on these problems.

Woodland

Land to be devoted to woodland will ordinarily be land not suited for cropland, or productive pasture. Practices recommended will include protection from fire and grazing, selective and improvement cuttings and new plantings of adapted species. The proper management of the woodland area as well as the usual conservation practices on the other land, contributed to the development of desirable conditions for game production. The District Commissioners desire to cooperate with the State Conservation Commission and local sportsman's clubs in this phase of the work and it is expected that more specific plans for cooperation will be developed as time permits.

G. REPORTS

The District Commissioners will furnish cooperating agencies such reports as are requested in order that these agencies may have a record of the progress of the district. Records will be kept which adequately reflect the progress and accomplishments to date. The Commissioners will expect the technicians who are assigned to the district to assist in collecting progress information for use in these reports.

H. REVISIONS

This Work Plan of the Monroe County Soil Conservation District will be revised from time to time as experience and needs indicate. Suggestions from farmers, landowners, cooperating agencies and other interested individuals are invited at all times. Whenever in the opinion of the District Commissioners these suggestions would result in increased efficiency of operations they will be incorporated into the Work Plan. The District Commissioners will review this Work Plan at least once a year to determine if revision is needed and to make such changes as are necessary.

MONROE COUNTY SOIL CONSERVATION DISTRICT

BY

E. G. Hawk

Chairman, Monroe County

Soil Conservation District Commissioners

DATE Aug. 11-1944

The signing of this Work Plan was authorized by a resolution of the Monroe County Soil Conservation Commissioners adopted at a meeting held on Aug. 11, 1944.

Date

SIGNED

Sterling B. Martin

Sterling Martin, Secretary

Monroe County Soil Conservation District

Period ending July 1, 1945

MONROE COUNTY CALENDAR OF WORK

August 24, 1944

WHAT	WHERE	HOW	WHO	WHEN
Organization of Commissioners	Commercial Club Rooms	Meeting	Newly elected Commissioners, Extension Director, District Conservationist	May 19, 1944
Inspection of work area	County wide	Tour	Extension Director, District Conservationist, Field Party Chief	May 22, 1944
Assemble and discuss material for District Program	Commercial Club Rooms	Meeting	Commissioners, Township representatives, District Conservationist, Extension Director	June 1, 1944
Special Tour	Jefferson County	Tour	Monroe County District Commissioners, Jefferson County District Commissioners, Extension Director, District Conservationist, Farm Planner	June 13, 1944
Completion of District Program	Commercial Club Rooms	Meeting	Commissioners, Township representatives, Conservation Extension Director	June 20, 1944

WHAT	WHERE	HOW	WHO	WHEN
Preparation of Work Plan	: FB Office	: Meeting	: Commissioners, : Extension Director, : District Conser- : vationist	: June 21, 1944
Pasture Field Day	: Albia Pasture : Farm	: Tour	: Commissioners, Ext- : ension Director, : Interested farmers, : Farm Planner	: June 30, 1944
Assignment of personnel	: Albia	:	: Farm Planner : started work	: July 18, 1944
Interest Meetings	: Franklin : Township- : McGrath : neighborhood : Pleasant : Township- : Akers : neighborhood : County wide	: Meeting : Meeting : Meetings	: Extension Director, : Ten farmers : Extension Director, : Farm Planner, : Seven farmers : Extension Director, : Commissioners	: Aug. 10, 1944 : Aug. 14, 1944 : As requests : come in
Completion and acceptance of Work Plan	: Commercial : Club Rooms	: Meeting	: Commissioners, : District Conserva- : tionist, Extension : Director, Voc. Agr. : Instructor, Town- : ship representa- : tives, Farm Planner:	: Aug. 11, 1944
Newspaper Publicity	:	:	:	: Monday of
Weekly column	: Albia Weekly	:	: Farm Planner	: each week
Special articles	: Albia and : Lovilia : Weeklies	:	: Extension Director, : AAA, FSA, : Farm Planner	: As events : occur and as : needs arise

WHAT	WHERE	HOW	WHO	WHEN
Exhibits	: Lovilia Fall : Festival : Albia Sire : Sale and Show	: Window : display : Booth : display	: Extension Director : and Farm Planner : Extension Director : and Farm Planner	: Aug. 24, 25, : 26, 1944 : Aug. 30 and : 31, 1944
Moving Pictures (Conservation Films)	: Lovilia Fall : Festival : Albia Sire : Sale and Show : Schools and : Meetings	: Night : Showings : Night : Showings : Special : Showings	: Farm Planner : Farm Planner : Farm Planner : Farm Planner	: Aug. 24 and : 25, 1944 : Aug. 30 and : 31, 1944 : As arranged : from Aug. 20 : to Sept. 20
Pasture Tours	: Albia pasture : farm : Local farms	: Tours : : Special tours	: Extension Director, : District Commis- : sioners, Interested: : farmers, Farm : Planner : Planning groups, : Farm Planner, : Extension Director, : District Commis- : sioners	: September : : As arranged
Contour Demonstrations	: Local farms	: Actual layout : on fields	: Extension Director, : District Commis- : sioners, AAA Com- : mitteemen, Farmers, : Farm Planner	: As arranged : Fall-1944 : and : Spring 1945
Demonstration Plots (Legume and grass seedings)	: North edge of : Albia (acreage: : of Voc. Agr. : Instructor)	: : : :	: Extension Director : Voc. Agr. Instruct- : or, Farm Planner, : Commissioners	: Spring 1945

WHAT	WHERE	HOW	WHO	WHEN
Community and Farm Bureau Township Educational Meetings	Each township	Meetings	Extension Director, Farm Planner, District Conserva- tionist, Commis- sioners	One of the winter months
Farm Planning	Pleasant Corners Georgetown To be arranged	Group Meetings Group Meetings Group Meetings	Pleasant Corner Group, Farm Planner South Guilford Group, Farm Planner Local leaders, Farm Planner	September and October October and November Dec., Jan., Febr., March, April, May, June
Regular Commissioner Meetings	District Office	Meeting	Commissioners, District Conserva- tionist, Extension Director	As arranged
Cooperation with Other Agencies	District wide	Group meetings Personal contacts	All agencies and groups interested in soil conserva- tion	Throughout the year
Educational Work on Soil Conservation Practices	District wide	Meetings 4 H F B Civic Rural Youth Farm Groups Schools Newspapers Pamphlets	Extension Director, Voc. Agr. Instruct- or, Commissioners, District Conserva- tionist, Farm Planner Others	Throughout the year

GOALS FOR THE PERIOD
ending July 1, 1945

Farm Plans ----- 30 to 40
Pasture Improvement Practices (No. of farms) 30 to 40
Contouring (clean tilled crops) ----- 1000 acres
At least one application for a farm planning group
from each township.

LAND RECOMMENDATIONS
FOR USE CAPABILITY CLASSES

These cropland and pasture recommendations are made on the basis that manure will be applied, and that the soils will be limed and fertilized according to soil tests.

Classes of Land	Suggested Rotations	Suggested Practices
Level land, either upland, or bottom land. Subject to little erosion. Recommended use- Cropland	C-G-M or C-G-M-M	No erosion control practice needed. If subject to overflow rotation will change or land may be used for pasture.
Gentle slopes. Subject to moderate erosion. Recommended use- Cropland	C-G-M-M-M-M C-G-M-M-M C-G-M-M C-G-M	No practice Contour Strip Crop (Contour) Terraced
Rolling land. Subject to severe erosion. Recommended use- Cropland	C-G-M-M-M-M C-G-M-M-M C-G-M-M C-G-M	No practice Contour Contour strip cropped Terraced
Too steep to be regularly cropped. Recommended use- Rotation hay or Pasture.	1 yr. of corn: & 1 yr. grain: when it is necessary to reseed.	Plow and work on the contour when reseeding and soil treatments are needed. - Renovation
Steep slope, rocky or badly eroded. Recommended use- Woodland or Pasture.		Renovate pasture where practical - good grazing management. Protect woodland from fires & grazing.
Very steep or rough Broken land. Woodland and Wildlife recommended.		Protect from fire and grazing.