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MAKING AND USING A FARM MAP

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Making and Using

a

FARM MAP

A farm map can be one of the farmer's most valuable tools. It can help him plan his farm layout, his crop rotations and feed production, his work and his fertilizer practices. He can use it to observe the results of his farming if he records on it a few important bits of information.

HOW TO MAKE A MAP

Perhaps the simplest map a farmer can make is a sketch of the farm showing each of the fields.

More exactness can be obtained from survey or plane table mapping of the farm. These methods are accurate but expensive.

Probably the cheapest way of obtaining a good map is to purchase an aerial photograph on which the farm can be viewed and make a tracing. Aerial photographs can be bought for most farms in New York State from the:

Eastern Laboratory
Aerial Photography Division
ASCS-USDA
45 South French Broad Avenue
Asheville, N. C. 28801

The photo must be ordered by photo number. The local Soil Conservation Service District office (where there is a SCS District) usually has a map of the farm and can supply the photo number. Aerial photos can be obtained in several standard scales but probably the most universally used and satisfactory is 660' to 1". The example in this publication is of that scale.

Drawing the Boundaries

Whether for a sketch or surveyed map all outside boundaries for the farm should be in dark solid lines. Permanent field boundaries should be in solid lines but less dark. Divisions in fields which are only temporary and are apt to be changed should not be marked on the map. They can be shown, using dotted lines as the maps are used.

North should be at the top of the page and should be indicated.

Numbering Fields

Each field should be numbered in a logical order generally from the top of the map downward.

The field number should be placed in the upper left hand corner and underlined.

Rented land should be shown on the map but be marked distinctively with a separate numbering series.

The Area of the Fields

Most farmers know the approximate acreage of their fields from drill readings, tree plantings (for orchards), or other measurements. If a sketch is used as a farm map these acreage measurements can be used.

From a surveyed or plane table map more exact acreages can be calculated. If the scale of these is 660 feet to the inch, for these and for aerial photographs of the same scale by using cross-section paper with 10 lines in the inch on each side. Each square on the paper will equal one-tenth acre. The farmer can then count the squares in each field on the map and determine the approximate acreage in the farm and in each field.

Acreages can be measured with fair accuracy to the nearest acre. When fields are small or are used intensively, measurements to the nearest tenth of an acre are desirable.

Many fields have been measured by the USDA when a farmer participates in various government programs. When available these figures can be used.

The acreage of each field should be recorded under the line which is under the field number.

Farm Description

A part of the farm map is a description showing the location, ownership and information pertinent to the farm and the making of the map. This should include a list of the fields showing the number, acreage and class of each field. The list can be in table form with columns for recording the use of the land, the fertilizer applications and the yields. Any other descriptive information which the farmer considers of value may be recorded.

The class of land for the fields on the farm is based on the type of crops grown or use made. Common classifications are:

C - Cropland
V - Vineyards
NBV - Non-bearing vineyard
BO - Bearing orchard
NBO - Non-bearing orchard
W - Woods
F - Farmstead
P - Pond
X - Waste

Reproducing the Map

If the farmer has access to a mimeograph or other duplicating machine he can prepare the necessary stencils and obtain as many copies as he may need of the map.

The drawing on plain white paper or tracing paper can be reproduced by most printing or engineering firms at relatively low cost. The many copying machines now available make reproduction of maps relatively easy and cheap. It is wise to contact the firm which is to make the copies of the maps and obtain advice as to the method of drawing the map and the materials to use for the most satisfactory results from the particular method of reproduction.

Without any of the above means available a farmer can use carbon paper and make good copies of his map at little more cost than the time required for the job.

The map should be reproduced on a paper of a size that will fit a good loose-leaf notebook and all maps in use should be kept in the notebook. (Reinforcements on the holes will keep the maps from tearing out unless they are handled carelessly).

USING THE MAP

The uses of farm maps are many. One copy of the map can be used to plot or record: (1) the soil types, (2) slope, erosion potential and other information, (3) such fertility information as the Ph of the soil, (4) lime applications, (5) location of drain tiles, (6) annual land use.

Although most farmers will find many uses of a map, the principle ones will be for planning the farming operation for the year to come, and for recording the activities during the current year.

The Annual Record

There are four things that should be recorded on the annual farm map. These are:

1. The crop
2. The fertilization practices
3. Spray applications
4. The yields

The crop should be recorded on the map in the field in which it was grown and harvested during the year. Any crops which are started for subsequent years should be shown in parenthesis after the crop for the current year, i.e., wheat (seeded), or oats (wheat). If a field is divided for two crops, each should be shown followed by the acreage. The location of the crop in the field can be shown with dotted lines. Where land is double cropped, the second crop should be listed and circled. In the table for use of land the crop can be recorded again by each field as a means of presenting the information in summary form.

In recording the fertilizer practices, the quantity and analysis of fertilizer should be shown. The quantity may be the rate of application per acre or the total amount applied on the field. The latter is preferable.

The yield should be the total produced on the field.

Other information such as planting and harvesting dates may be written on the map or in the table. Weather, insect damage or other conditions affecting production may be noted.

When to Record on the Maps

A pencil record of the crops which are planned for each field should be entered on the year's map at the time the plans are made. When the crops are actually planted or harvested (as in the case of hay or hay crop silage) the record can be corrected and entered permanently.

Fertilizer applications should be recorded as soon after the application as possible. Delay may result in omissions. Yields should also be recorded as soon as they are determined.

A pocket notebook carried in the field for making notes while the work is in progress will help a farmer complete his annual map.

What the Record Can Show

As with most records, the farm map record becomes of increasing value if it is kept each year for several years. The maps will give:

1. the actual rotation which was followed,
2. indications from yields whether or not it is time to re-seed,
3. the response to fertilizer applications,
4. the liming and fertilizing history which can be a guide to future plans.
5. the relative productivity of different fields for different crops.
6. a basis for estimating and planning feed production and purchases.

How to Study the Record

If the maps are kept in a looseleaf book each map can be referred to separately or they can be removed and arranged by years. Individual maps will show the acreages devoted to each crop and can be used early in the year to estimate production. The maps arranged by years show the rotations, trends in yields, and fertilization history.

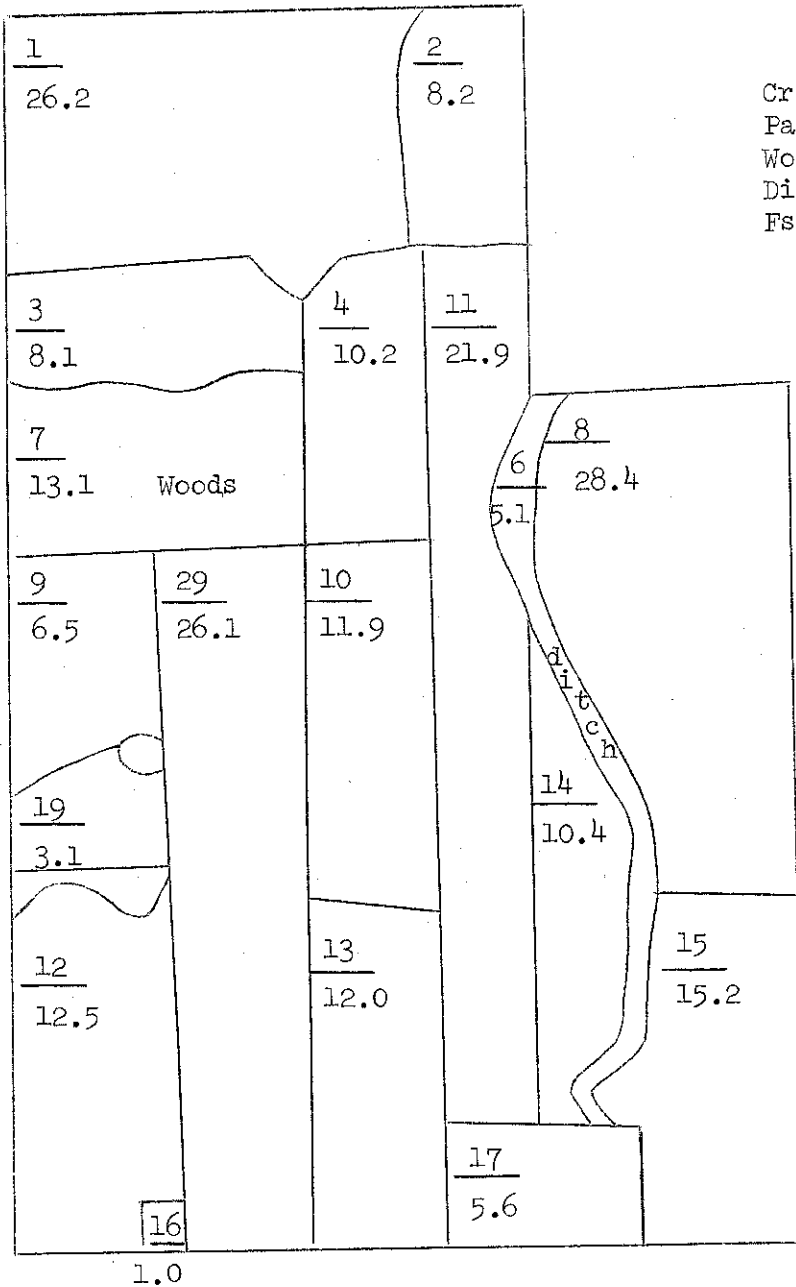
Before making plans for the next year's crops, the farmer should consult his map record. He should study his needs for feed, he should consider the types of soil he has and their productivity and he should look at the use of the fields in previous years. He then can decide what crops to grow where. He can also consider the yields for different fields, the previous fertilizer practices, and can decide the kind and amount of fertilizer to use.

As each crop is harvested the yields can be recorded and the farmer can see the result of his planning and his operation. He will then be better informed when he starts his planning for the next year.

(EXAMPLE)



Farm No: 434
 County: Cayuga
 Location: Aurora, N. Y.
 Owner's Name: Richard Jones
 Photo No: ARW-2N-135
 Read: June 1969



Cropland	174.5
Pasture	26.2
Woods	13.1
Ditch	5.1
Fstd.	6.6
<u>225.5</u>	Total acres

