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AGRICULTURAL EXTENSION DIVISION
UNIVERSITY OF MINNESOTA

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MINNESOTA FARM BUSINESS NOTES

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University Farm, St. Paul, Minnesota

COUNTY AGRICULTURAL PLANNING

Prepared by S. B. Cleland and J. B. McNulty

In the fall of 1935 the Agricultural Adjustment Administration invited the extension divisions of the various states to cooperate in conducting a series of county agricultural planning projects in which farmer committees of the various counties would be asked to assist in recommending systems of farming which would maintain the soil and be as practical as possible from the standpoint of operation and earnings. In Minnesota this project was adopted on the basis of working each year with a few counties which would be given careful assistance. In the winter of 1935-36, nine counties were thus assisted and in 1936-37 sixteen more were visited, making twenty-five in all. A member of the staff of the Division of Agricultural Economics or a farm management specialist of the Agricultural Extension Division served as leader in each case, working with the county agent and the farmer committee, which consisted of from twenty to thirty leading farmers.

The approach in each case, after reviewing facts about the county's agriculture as revealed by the census and other sources, was to invite a presentation of crop rotations which, in the judgment of the committee, would maintain the soil on a long-time basis and would be practical from a farm management viewpoint for the different farm conditions of the county. Usually from four to six different rotations were considered sufficient to meet all the varying conditions within the county. About twenty-five different rotations were suggested for the entire state. Four rotations typical of those adopted in different parts of the state are presented in Table 1.

Table 1

Four Crop Rotations

Rotation 1	Rotation 2	Rotation 3	Rotation 4
1. Corn	1. Corn	1. Grain	1. Cultivated crops
2. Grain	2. Grain	2. Grain	2. Grain
3. Corn	3. Sweet clover pasture	3. Grain	3. Clover & timothy
4. Grain	4. Corn	4. Sweet clover	4. Clover & timothy
5. Alfalfa (3-5 years)	5. Grain	(Hay, seed,	
	6. Alfalfa (3-5 years)	pasture, or	
		summer fallow)	

When the committee had agreed upon the rotations which they felt would suit all types of farms in the county, they were asked to estimate the percentage of the tillable crop land of the county to which each would apply. Thus a farm completely tillable would need a rotation to supply hay and pasture from tillable land, while a farm with large acreages of non-tillable hay and pasture would need a rotation without tillable pasture, or with less tillable land in hay. Different rotations would be needed for large farms than for small farms, for low lime soil as

compared with high lime soil, and because of other differences. Taking all conditions into account, each committee estimated the percentage of the tillable land of the county to which each rotation should be applied. From this percentage it was then possible to compute the total acreage of each crop which would be raised in the county, if all the tillable land were using one or another of the rotations; these acreages could then be compared with the corresponding acreages as shown in the census report for the county.

In Table 2 is presented a comparison of the use of tillable crop land in the twenty-five counties studied under the recommended system as compared with the use in 1929, as shown in the 1930 census. The counties are grouped by type-of-farming areas to facilitate comparisons. It will be noted that there is considerable uniformity within an area in the trends in cropping change that would result from the adoption of the recommended program. In the three counties studied in Area 3, for instance, where there is considerable uniformity in type of farming, the recommendations uniformly resulted in a slight decrease in corn acreage and a material increase in hay and pasture with small grain acreage taking up the difference. In three counties of Area 2, Meeker, McLeod and Steele, there is shown a small increase in corn acreage and a large increase in hay and pasture, while in Brown County, adjoining Area 3, there is indicated a small decrease in corn acreage.

Table 2

Recommended Use of Tillable Crop Land as Compared with Use in 1929							
Area	County	Percentage of Tillable Crop Land					
		Cultivated Crops		Small Grains		Hay and Pasture	
		1929	Recommended	1929	Recommended	1929	Recommended
1	Dodge	23	33	44	33	33	34
1	Olmsted	22	34	42	30	36	36
1	Winona	19	18	44	42	37	40
2	Brown	38	36	52	37	10	27
2	Meeker	28	35	52	34	20	31
2	McLeod	32	40	48	35	20	25
2	Steele	33	41	47	30	20	29
3	Lyon	40	38	49	38	11	24
3	Martin	44	41	42	32	14	27
3	Rock	45	43	44	30	11	27
4	Bigstone	29	32	60	43	11	25
4	Lac qui Parle	34	33	56	40	10	27
4	Stevens	25	37	61	37	14	26
5	Chisago	28	32	43	26	29	42
5	Morrison	21	23	59	30	20	47
5	Sherburne	36	31	48	24	16	45
6	Ottertail	18	24	56	44	26	32
6	East Polk	7	17	54	45	39	38
6	Todd	26	22	51	34	23	44
7	Clay	21	19	63	47	16	34
7	Kittson	3	8	66	65	31	27
7	West Polk	9	15	66	65	25	20
8	Beltrami	10	21	22	21	68	58
8	Itasca	9	23	18	27	73	50
8	St. Louis	5	10	13	26	82	64

Having established the changes in acreages which would result from the adoption of the recommended systems, the committees were next asked to consider the changes in yield per acre of the various crops if the recommended acreages were used on all tillable land for an extended period of time, say ten years. These yield changes were then applied to the recommended acreages to get the total quantities of crops to be produced. Estimates also were made of any changes in crops to be shipped into or out of a county. The changes in feed supplies which would thus be brought about are presented in Table 3. Varying changes in quantities of concentrates are shown, the whole indicating some increase. A much greater increase in dry roughage is indicated, with an increase in silage and in pasture in some counties.

Table 3

Feed Available under Recommended Cropping Systems as Compared with
that from 1929, at Normal Yields

Area	County	Per cent Change in Quantity			
		Concentrates	Dry roughage	Silage	Acres of pasture
1	Dodge	43	14	112	-3
1	Olmsted	86	14	44	-4
1	Winona	2	14	-	-17
2	Brown	20	120	62	-5
2	Meeker	40	15	-	15
2	McLeod	-3	13	46	7
2	Steele	25	59	14	8
3	Lyon	29	79	72	25
3	Martin	14	53	17	15
3	Rock	8	51	62	24
4	Bigstone	-4	30	95	25
4	Lac qui Parle	6	67	100	26
4	Stevens	21	46	-	16
5	Chisago	-20	54	5	2
5	Morrison	-28	70	22	4
5	Sherburne	21	30	-	6
6	Ottertail	28	29	32	-3
6	East Polk	-1	33	3	-7
6	Todd	28	24	15	-14
7	Clay	25	57	84	51
7	Hittson	18	31	1204	14
7	West Polk	55	-22	25	-
8	Beltrami	41	50	421	9
8	Itasca	79	18	173	28
8	St. Louis	53	22	-	-

Consideration was given to the effect the changed feed supplies, resulting from the indicated cropping systems, would have upon the kinds and quantities of livestock and livestock products which might be produced. It was generally agreed that because the changes would increase roughage much more than concentrates, there would tend to be a greater increase in roughage-consuming livestock (dairy cows, beef-breeding herds and farm flocks of sheep) than in concentrate-consuming livestock (hogs, feeder cattle, feeder lambs, turkeys and chickens). The changes which would actually be made as time went on naturally would be affected by market prices, changes in methods of feeding, and other factors.

MINNESOTA FARM PRICES FOR JULY, 1937
Prepared by W. C. Waite and W. B. Garver

The index number of Minnesota farm prices for the month of July, 1937 was 97. When the average of farm prices of the three Julys, 1924-25-26 is represented by 100, the indexes for July of each year from 1924 to date are as follows:

July 1924 - 85	July 1931 - 57
" 1925 - 107	" 1932 - 45
" 1926 - 107	" 1933 - 58
" 1927 - 98	" 1934 - 56
" 1928 - 110	" 1935 - 73
" 1929 - 110	" 1936 - 86*
" 1930 - 82	" 1937 - 97*

*Preliminary

The price index of 97 for the past month is the net result of increases and decreases in the prices of farm products in July, 1937 over the average of July, 1924-25-26 weighted according to their relative importance.

Average Farm Prices Used in Computing the Minnesota Farm Price Index,
July 15, 1937, with Comparisons*

	July 15, 1937	June 15, 1937	July 15, 1936	Av. July 1924-25- 26	% July 15, 1937 is of June 15, 1937	% July 15, 1937 is of July, 15, 1936	% July 15, 1937 is of July 15, 1924-25-26
Wheat	\$1.31	\$1.14	\$1.11	\$1.39	115	118	94
Corn	1.13	1.05	.69	.80	108	164	141
Oats	.40	.39	.32	.39	103	125	103
Barley	.63	.61	.58	.64	103	109	98
Rye	.79	.79	.60	.72	100	132	110
Flax	1.85	1.73	1.87	2.21	107	99	84
Potatoes	1.05	1.05	.95	.97	100	111	108
Hogs	11.00	10.30	9.30	9.93	107	118	110
Cattle	8.10	7.70	5.30	6.17	105	137	131
Calves	8.30	8.30	7.30	9.10	100	114	91
Lambs-sheep	8.75	8.98	8.42	11.33	98	104	77
Chickens	.126	.125	.14	.181	101	90	70
Eggs	.172	.160	.181	.24	108	95	72
Butterfat	.33	.33	.34	.41	100	97	80
Hay	6.08	7.82	7.02	11.70	78	87	52
Milk	1.70	1.70	1.69	2.01	100	101	85

*Except for milk, these are the average prices for Minnesota as reported by the United States Department of Agriculture.

Indexes and Ratios of Minnesota Agriculture*

	July, 1937	June, 1937	July, 1936	Av. July, 1924-26
U.S. farm price index	90.0	89.0	83.0	100.0
Minnesota farm price index	97.0	96.0	86.0	100.0
U.S. purchasing power of farm products	104.0	103.0	103.0	100.0
Minnesota purchasing power of farm products	111.0	110.0	107.0	100.0
U.S. hog-corn ratio	9.1	8.5	11.4	12.0
Minnesota hog-corn ratio	9.7	9.8	13.5	13.2
Minnesota egg-grain ratio	8.9	9.2	12.6	14.0
Minnesota butterfat-farm-grain ratio	22.6	23.6	30.6	32.0

*Explanations of the computation of these data may be had upon request.