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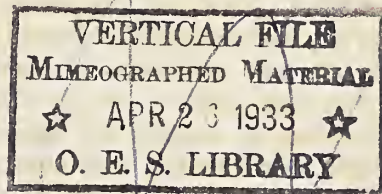
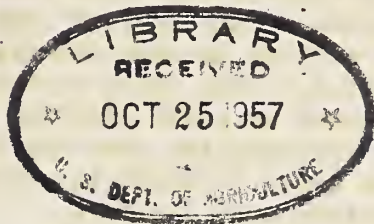
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UNITED STATES DEPARTMENT OF AGRICULTURE

EXTENSION SERVICE

WASHINGTON, D. C.

Ext. Serv. 26



2
Twenty-Eight Million Dollars Return to one State in one Year
from Cooperative Extension Work

These are times when legislative bodies and the public generally are interested in the immediate monetary value as well as in the long-time educational value of extension work.

One of the most comprehensive attempts to measure the money value of extension that has come to the attention of this office is described in the 1932 annual reports from California. Director B. H. Crocheron of that State reports on it as follows:

"We all realize that extension work is an educational undertaking, most of the results of which cannot be measured in terms of immediate dollars and cents. It is assumed that all education, whether of minors or of adults, is helpful to our civilization. It has not been deemed necessary that this should be proved by measuring its immediate results in terms of monetary income. However, the agricultural extension service differs from some other forms of educational work in that some of its work is possible of immediate valuation. This does not mean, however, that its major results are capable of financial appraisal, nor that those projects which can be so evaluated represent the largest proportion of time expended by extension agents. Obviously, it is as unfair to measure the immediate value of 4-H club work as it would be to measure the immediate value of the education of university students. Much of our efforts in home demonstration work have to do with increasing the satisfactions of farm life rather than its financial income. Many agricultural projects have no immediate financial return. Such projects, for example, as reforestation, soil building, erosion control, and others, have to do with long-time practices in agriculture rather than immediate returns. It would therefore be manifestly unfair to assume that the only benefits of extension work or those by which it should be wholly judged are the projects having an immediate financial return.

"Nevertheless, after all is said and done, agricultural extension does have certain projects which do return increased financial results to the States, counties, and individuals concerned. We desired to find out how much this portion of extension work had returned

to California. Therefore, last summer we moved into the field the four farm management specialists, who visited every county extension office, studied projects and, with the county agent, analyzed definite, determinable results of extension work upon those projects which are capable of such analysis. They started back in the year 1925 and made a sheet for each project in each county. I am enclosing a sample of the sheet used. This sheet showed the practice advocated, the number of acres or units adopting the practice in each of the years since its introduction into the county, and finally, the number of acres or units to which the practice might be adapted if universal application were secured.

"For example: A new variety of wheat was introduced in 1925, which variety was developed at the State experiment station. Our test plots showed over a period of years that this wheat increased the yield by five bushels an acre. We were able by our records to estimate the number of acres in the county on which this variety had been planted every year since it was introduced. At the known farm value of the wheat, less cost of harvesting, we were able to value this particular project as it had developed through the years. Every effort was made to place the calculations on such a conservative basis that no valid criticism could be made of the results. Necessarily, as the project developed through the years so that larger acreages were planted to the recommended variety, the county agent did not have definite records of acreages. In such cases a most conservative estimate was used so that we might be sure to be well within the bounds of actuality.

"After the canvass of county offices was completed, the results were assembled and analyzed at the State office. We have them totaled not only by years and by counties, but also arranged in various divisions of subject matter. We found that the projects came into two major groups: (1) Expense saving projects, in which the cost of production was reduced without any increase in resultant yield; and (2) production projects, in which the cost of production was reduced by means of increased yield. As an example of an expense saving project we might mention the decreased cultivation of orchards, which has been widely advocated and adopted in this State.

"Our tabulations show that total gains in all extension projects, resulting during the year 1931 in immediate, direct, monetary savings, amounted to \$28,694,916. If the practices advocated had been adopted on all crops to which they were applicable -- in other words, if universal application had been secured -- the resultant gain in 1931 would have been \$71,093,790. This figure seems very large, but in connection therewith it should be remembered that the total income for all crop and livestock products in this State in that year was \$670,151,904. The average yearly gain from extension projects from 1925 to 1931, inclusive, was \$17,368,906. The results provide an interesting illustration of the cumulative effects of extension projects as they go on from year to year, in which each project shows a widening application, a larger number of individuals involved, and a greater return to the county as time proceeds."

The following description of the study is from the report of the Farm Management Specialists, L. W. Fluharty, Arthur Shultis, B. B. Burlingame, and W. C. Ockey.

"Evaluation of Some Agricultural Extension Activities. At the request of Director Crocheron the farm management specialists undertook to make a survey of the economic value to California of some projects in Agricultural Extension Work. This survey was carried out by having one of the Farm Management Demonstrators visit each county in the State where there is a farm advisor's office. In cooperation with the farm advisor the money value of extension work in savings and production was figured out and recorded on a survey blank prepared for this purpose. The blank included the following sub-divisions:

1. The general field or project within which the activity falls.
2. Practice advocated in detail.
3. Year work started in the county.
4. Enterprises or homes to which the activity might apply -
 - a. Crop or enterprise involved.
 - b. Acres, units, or number.
5. Extent of adoption of the practice and the resultant savings in expense or increase in income due to adoption from 1925 to 1932, inclusive -
 - a. Acres, units, heads or homes adopting practice.
 - b. Percent of total which might adopt practice.
 - c. Average gain per unit.
 - d. Total gain for each year.
6. Probable total economic gain if all farmers to whom this activity could apply were to adopt the practice.

"By using information from thousands of cost account records and from results of test plots carried on by farm advisors it was possible to measure with a fair degree of accuracy benefits derived by farmers from work of the Extension Service. The method used in arriving at these estimates was to ascertain from the farm advisors' records how many units (acres, head, homes) had been affected by the teaching of certain practices by years since 1925. This figure was multiplied by the average gain per unit as shown from either the cost account records or from results of test plots under the direct control or supervision of the farm advisor. In each project where gain was estimated, allowance was made for the inability of the farmers who attempted to put practices into operation, to carry them out as satisfactorily as under the supervision of the farm advisor. As an illustration: In Stanislaus county cost account records showed that in 1925 the average cost of peach orchard cultivation for the county was \$21.95 per acre. On the same farms in 1929 the average cost was \$3.85 per acre, a reduction of \$13.10 per acre in cost of cultivation during the 5-year period. In making our evaluation of savings, however, on the total number of acres affected by this practice the very conservative figure of \$4.00 per acre reduction in cultivation costs was used to estimate the savings made.

"In making this evaluation only those Extension projects were considered to which a definite money value could be assigned. Much of the Extension Agent's time is devoted to activities which have no direct money return. On the other hand, many projects have a money value but were not evaluated because no satisfactory basis could be found for making such estimates. The final summary (See Table V) showed that the annual gain from expense savings projects amounted to \$8,397,671.00, from production projects \$19,656,373.00, while the total annual gain from all extension activities totaled \$23,694,916.00."

BLANK FOR EVALUATION OF AGRICULTURAL EXTENSION ACTIVITIES
(California)

County _____ Data secured by _____ Date _____

(a) General field or project within which this activity falls:

(b) Practices advocated in detail:

(c) Year started in county: _____

(d) Crops, enterprises, or homes; and acres, number of units, etc., to which this activity might apply: (1930 Census)

Crops or enterprises involved	Acres or units	Crops or enterprises	Acres or units

(e) Extent of adoption of practice and resulting savings in expense or increases in income due to adoption, by years:

Year	Acres, units, head, or families adopting	% of Total	Av. gain per unit	Total gain for year
1922				
1923				
1924				
1925				
1926				
1927				
1928				
1929				
1930				
1931				
<u>Total</u>				

(f) Probable total economic gain if all farmers to whom this activity could apply were to adopt the practice. (Total units in county times the average gain per unit, 1931 conditions)

\$ _____

EVALUATION OF SOME AGRICULTURAL EXTENSION ACTIVITIES, UNIVERSITY OF CALIFORNIA,
COLLEGE OF AGRICULTURE

Table 5. -- Annual Gain Resulting from Agricultural Extension Work in Various Classes of Projects as of 1931.

(From Annual Narrative Report of L. W. Fluharty, Arthur Shultis, B. B. Burlingame,
and W. C. Cockey, Farm Management Demonstrators, 1932)

C o u n t y	Gain from expense saving projects	Gain result- ing from production projects	Sub-total for all agricultural projects	Gain from all home dem. projects	Gain from agricultur- al club projects	Total gain for all projects evaluated
Alameda	25,680	211,779	237,459	11,289	132	248,880
Butte	26,100	209,300	235,400	16,600	627	252,627
Colusa	57,750	102,500	160,250	-	391	160,641
Contra Costa	20,250	34,600	54,850	4,450	592	59,892
El Dorado	8,184	88,512	96,696	-	304	97,000
Fresno	642,000	2,925,200	3,567,200	36,800	4,220	3,608,220
Humboldt	-	46,900	46,900	-	2,807	49,707
Imperial	49,000	356,581	405,581	42,000	946	448,527
Kern	175,300	672,310	847,610	39,800	5,055	892,465
Kings	157,470	127,330	284,800	33,880	1,455	320,135
Lake	12,700	229,860	242,550	-	428	242,978
Lassen	-	185,823	85,823	2,740	1,254	89,817
Los Angeles	1,535,500	2,757,740	4,293,240	-	2,281	4,295,521
Madera	28,000	279,550	307,550	15,525	386	323,461
Marin	9,200	184,470	193,670	-	500	194,170
Mendocino	39,000	540,800	579,800	-	369	580,169
Merced	170,750	338,500	509,250	46,500	2,642	558,392
Modoc	2,325	7,932	10,257	-	739	10,996
Monterey	50,200	308,800	359,000	10,393	2,186	371,579
Napa	42,020	319,520	361,540	13,950	594	376,084

Orange	1,820,500	912,500	2,733,000	-	4,299	2,737,299
Riverside.....	294,200	496,399	790,599	21,650	1,939	814,188
Sacramento	40,500	465,750	506,250	36,248	2,364	544,862
San Benito	7,299	163,996	171,295	3,446	259	175,000
San Bernardino	683,000	1,814,526	2,497,526	23,315	3,010	2,523,851
San Diego	274,000	523,700	797,700	57,000	855	855,555
San Joaquin	152,000	835,500	987,500	6,940	5,218	999,658
San Luis Obispo	67,920	334,116	402,036	11,362	531	413,929
Santa Barbara	68,835	203,133	271,968	18,304	4,828	295,100
Santa Cruz	55,330	260,225	315,525	6,160	370	322,055
Shasta	600	31,625	32,225	-	198	32,423
Solano	5,000	65,000	70,000	14,950	353	85,303
Sonoma	68,768	697,242	766,010	-	1,206	767,216
Stanislaus	296,000	1,200,250	1,496,250	10,100	2,123	1,508,473
Sutter	195,000	372,000	567,000	-	1,092	568,092
Tehama	32,000	187,200	219,200	31,500	1,562	252,262
Tulare	869,200	233,564	1,102,764	47,000	2,507	1,152,271
Ventura	401,020	563,400	964,420	-	705	965,125
Yolo	13,900	356,200	370,100	15,800	1,286	387,186
Yuba	1,200	112,050	113,250	-	557	113,807
Total for State	8,797,671	19,656,373	28,054,044	577,702	63,170	28,694,916

More detailed information regarding the study in an individual county is available from the report of T. S. Brown, County Agent, Lassen County:

"On pages 28, 29, 30, and 31 there will be found three tables entitled 'The Evaluation of Some Agricultural Extension Activities, University of California, College of Agriculture,' and these tables are the summary of economic gain from Agricultural Extension work in Lassen County. It might be stated that a member of the Giannini Foundation visited Lassen County and obtained the information from which these records were compiled. These records were based on facts and statistics found in the office and in the compiling an effort was made to be conservative so that in all probability the actual gain to Lassen County is greater than that which appears in these records. It will be noted that the largest gain is from dairying. This is not unusual when we note that in 1922 the dairy production of Lassen County per cow was 110 lbs. of butterfat while in 1932 it was 265 lbs. The change was brought about through the intensive dairy program carried on by the Lassen County Farm Bureau. Almost identically the same thing might be said about the poultry program. The last table gives a summary showing that Lassen County has gained \$325,161.00 from Agricultural Extension Work, \$8,076.00 from Home Demonstration Agent work, \$10,928.00 from 4-H Club work or a total gain of \$344,165.00. This is an average of \$34,416.50 increased revenue for each year that the Extension Service has operated in Lassen County. Naturally these tables only take into consideration those things on which value can be placed. It does not place any economic monetary value on a large group of things which have to do with personal service rendered to individuals, community work which improves living conditions and raising standards of living and which has for its aim the betterment of living conditions on the farm."

EVALUATION OF SOME AGRICULTURAL EXTENSION ACTIVITIES
UNIVERSITY OF CALIFORNIA, COLLEGE OF AGRICULTURE

Summary of Economic Gain in 1931 and Potential Value of Agricultural Extension
Work in Lassen County

Project and activity recommended	Units in which activity might apply	Percent adopting practice	Units adopting practice in 1931	Gain in value per unit	Economic value of gain in 1931	Economic value of 100% adoption
Agricultural projects:						
Poultry management						
Culling	34,000	75	25,500	\$.30	7,650	10,200
Better breeds	34,000	75	25,500	.35	8,925	11,900
Better housing	34,000	75	25,500	.35	8,925	11,900
Total poultry management.	102,000		76,500		25,500	34,000
Dairy management						
Better sires	3,500	100	3,500	11.55	40,425	40,425
Culling	3,500	19	665	25.41	16,898	88,935
Total dairy management ..	7,000		4,165		57,323	129,360
Field crop management						
Sulphur on alfalfa	6,000	5	300	10.00	3,000	60,000
Total agricultural projects	115,000		80,965		85,823	223,360
Home demonstration projects:						
Nutrition						
Better buying	469	55	257	5.00	1,285	2,345
Clothing						
Better buying	469	8	39	5.00	195	2,345
Dressmaking	469	48	227	2.69	610	1,262
Dry cleaning	469	23	107	3.73	400	1,749
Total clothing	1,407		373		1,205	5,356
Home furnishing						
Renovation	469	9	43	5.81	250	2,725
Total home demonstration projects	2,345		673		2,740	10,426
Total club work	235	22	51	24.59	1,254	5,803
Total all Extension projects evaluated	117,581		31,689		89,817	239,589

EVALUATION OF SOME AGRICULTURAL EXTENSION ACTIVITIES
UNIVERSITY OF CALIFORNIA, COLLEGE OF AGRICULTURE

Summary of Economic Gain from Agricultural Extension Work in Lassen County

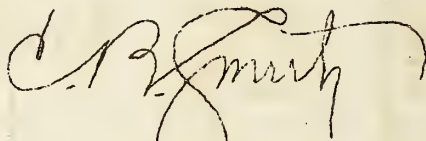
Project and activity recommended	1925	1926	1927	1928	1929	1930	1931	Total gain for period
Production projects -								
Poultry management:								
Culling	1,650	2,100	2,700	3,750	4,800	6,000	7,650	28,650
Better breeds	1,925	2,450	3,150	4,375	5,600	7,000	8,925	33,425
Better housing	1,925	2,450	3,150	4,375	5,600	7,000	8,925	33,425
Total poultry management	5,500	7,000	9,000	12,500	16,000	20,000	25,500	95,500
Dairy management:								
Better sires	4,125	8,801	14,028	19,807	26,136	33,016	40,425	146,338
Culling	1,634	3,485	9,692	6,534	10,527	16,553	16,808	65,323
Total dairy management	5,759	12,286	23,720	26,341	36,663	49,569	57,233	211,661
Field crop management:								
Sulphur on alfalfa				3,000	6,000	6,000	3,000	18,000
Total value production projects	11,259	19,286	32,720	41,841	58,663	75,569	85,823	325,161
Home demonstration projects -								
Nutrition:								
Better buying				625	610	1,185	1,285	3,705
Clothing:								
Dressmaking			400	461	695	520	610	2,686
Better buying					320	520	400	1,240
Dry cleaning								
Total clothing			400	461	1,015	1,040	1,205	4,121
Home furnishing:								
Renovation							250	250
Total value home demonstration projects			400	1,086	1,625	2,225	2,740	8,076

Total value agricultural projects ..	11,259	19,286	32,720	41,841	58,663	75,569	85,823	325,161
Total value club work	1,593	2,786	1,689	1,155	1,363	1,088	1,254	10,928
Total all extension projects								
evaluated	12,852	22,072	34,809	44,082	61,651	78,882	89,817	344,165
Net annual increase -		9,220	12,737	9,273	17,569	17,231	10,935	12,827
Recapitulation on basis of projects--								
Agricultural projects:								
Poultry management	5,500	7,000	9,000	12,500	16,000	20,000	25,500	95,500
Dairy management	5,759	12,286	23,720	26,341	36,663	49,569	57,323	211,661
Field crop management			3,000	3,000	6,000	6,000	3,000	18,000
Total agricultural projects	11,259	19,286	32,720	41,841	58,663	75,569	85,823	325,161
Home demonstration projects:								
Nutrition				625	610	1,185	1,285	3,705
Clothing			400	461	1,015	1,040	1,205	4,121
Home furnishing							250	250
Total home demonstration projects.			400	1,086	1,625	2,225	2,740	8,076
Total club work	1,593	2,786	1,689	1,155	1,363	1,088	1,254	10,928
Total all extension projects								
evaluated	12,852	22,072	34,809	44,082	61,651	78,882	89,817	344,165
Net annual increase								19,166

It is probable that not all State extension directors will agree entirely with the procedure followed in the California study. It is hoped, however, that the plan herein described may be suggestive for ways of evaluating the economic results of extension teaching. To meet changing conditions we need to be constantly alert to the many possible ways of checking up on the progress being made from both the educational and the financial viewpoint.

This office will appreciate your keeping us informed of any efforts made in your State to evaluate extension accomplishment. If we can be of assistance in this connection let us know.

Yours very truly,

A handwritten signature in cursive script, appearing to read "C. B. Smith". The signature is written in dark ink and is positioned above the typed name.

C. B. Smith,
Assistant Director.

