

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

BERKELEY, CALIFORNIA

SOIL CONSERVATION SERVICE

Farm & Ranch Planning - 2
T. N. ~~No. 12 - Economic Evaluation~~

September 1956

Helpful information as to the possible cost and effect of the conservation program on the management of the operating unit is needed in most work units to assist in farm planning. This Technical Note describes a technique for developing and presenting this kind of information. Carroll Dwyer, economist in the Portland E & WP unit, has been instrumental in developing this method.

Fred A. Haughton, Jr.
State Soil Conservationist

SAN GORGONIO BARLEY BUDGET

As a by-product of the Smith Creek Watershed Plan, we have prepared a working tool that promises to be useful in every-day operation in the San Gorgonio Soil Conservation District. That tool is a net farm income graph for dry land barley, which we locally call the "Barley Budget."

Now that we have made up the graph, we know that the average barley crop in our area (21.37 cwt/ac) nets the farmer \$13.50 a year. We know, too, that he is losing money on any land that yields less than 9 sacks and that 12 sacks bring him only \$3.50 an acre per year as net farm income. Suppose we are advocating a practice that will increase his yield from 12 sacks to 15. From our graph we can see that his net farm income will go up from \$3.50 to \$6.50. If the practice costs less than \$3.00 an acre per year, it is a good deal.

On the other hand, we might be advocating that the farmer cut out a cultural operation or two in the interest of good conservation farming, knowing that his yield would be a little less. In that case, we would make up a budget showing costs and net returns under his present operations and another for the recommended operation. If the net return per acre proved higher under the changed practices, we should be able to convert the farmer to the conservation farming method.

What we have done, then, is to clear away all of the bushes we have been beating around and get down to the question of dollars in the farmer's pocket after all the costs have been paid.

The front of the attached page shows the tabulation we made before we could plot the curve. We are in a grain-fallow area; so we listed all the practices that are customary during the two-year rotation period.

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We put them in columns for 5-sack yield increments. Most of them are the same regardless of yield, so they are repeated across the page. Others go up as yields rise. To arrive at these dollar values, we talked to the District Directors, other farmers and implement men. We figured the per-acre costs of tractors, operators, disks, drills, combines, shelter, maintenance and the other items for each operation. The sum of the cost items gave a gross cost at each yield level. R. L. Adams' Farm Crop Manual was used as a guide in developing the budgets.

Using the current barley price to the farmer, we figured the income at each yield level and added to it the value of stubble pasturage since most of the stubble in this area is grazed by cattle. This gave a gross income at each yield level. Subtracting the gross cost from the gross income gave the net farm income for the two-year period, which we divided by two for annual net farm income. Net farm income is the amount remaining after all costs of operation have been met - to pay interest on capital investment, make a return to management, make capital improvements, pay living expenses, etc.

We charged all labor, regardless of who performed it, at prevailing prices. Therefore, if an operator or his family did part or all of the work, they would have a labor income in addition to the net farm income.

The final step was plotting net farm income against yield and drawing a curve as shown on the back of the attached sheet. With the curve plotted, we can pick off the net farm income for any yield.

In other areas costs probably would vary from ours. Hauling distances might be greater and different tractor-implement combinations might be in use. It might even be necessary to make one curve for II and III and another for IV and VI lands. However, the principles and procedures remain the same, not only for barley, but for any crop anywhere. Certainly, the conversion from conversation to dollars seems to be worth investigating.

Jack Reid W. U. C.
October 1955

Attachment

COST AND INCOME DATA FOR BARLEY BUDGET

Beaumont Area, California

Attachment to

T. N. ~~No. 12~~ Farm & Ranch

1955 Prices and Costs

~~Economic Evaluation =~~

Planning - 2

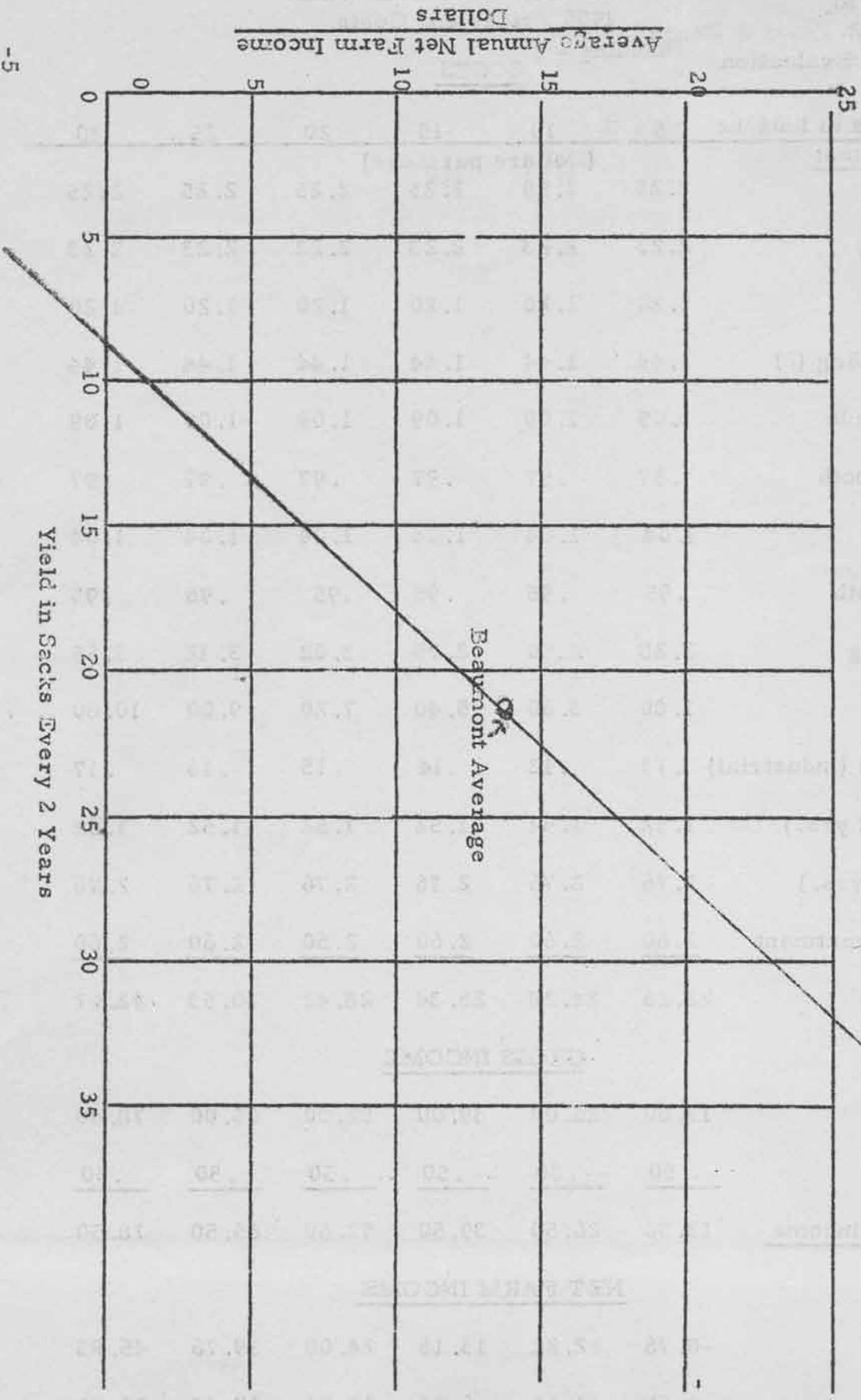
COSTS

Yield Levels in 100#/ac	5	10	15	20	25	30
<u>Expense Items:</u>	(Dollars per Acre)					
Plowing	2.25	2.25	2.25	2.25	2.25	2.25
Chiseling	2.23	2.23	2.23	2.23	2.23	2.23
Disking	1.20	1.20	1.20	1.20	1.20	1.20
Rod Weeding (2)	1.44	1.44	1.44	1.44	1.44	1.44
Noble Blade	1.09	1.09	1.09	1.09	1.09	1.09
Spring Tooth	.97	.97	.97	.97	.97	.97
Drilling	1.04	1.04	1.04	1.04	1.04	1.04
Spike Tooth	.95	.95	.95	.95	.95	.95
Combining	2.28	2.50	2.75	3.02	3.32	3.65
Hauling	1.80	3.60	5.40	7.20	9.00	10.80
Insurance (Industrial)	.13	.13	.14	.15	.16	.17
Fences (2 yrs.)	1.52	1.52	1.52	1.52	1.52	1.52
Taxes (2 yrs.)	2.76	2.76	2.76	2.76	2.76	2.76
Seed & Treatment	<u>2.60</u>	<u>2.60</u>	<u>2.60</u>	<u>2.60</u>	<u>2.60</u>	<u>2.60</u>
<u>Gross Costs</u>	22.26	24.28	26.34	28.42	30.53	\$2.67
<u>GROSS INCOME</u>						
Barley	13.00	26.00	39.00	52.00	65.00	78.00
Pasture	<u>.50</u>	<u>.50</u>	<u>.50</u>	<u>.50</u>	<u>.50</u>	<u>.50</u>
<u>Total Gross Income</u>	13.50	26.50	39.50	52.50	65.50	78.50
<u>NET FARM INCOME</u>						
Biennial	-8.76	+2.22	13.16	24.08	39.76	45.83
Annual	-4.38	+1.11	6.58	12.04	17.48	22.91

Attachment to

T. N. McFarlane Farm & Ranch
Economic Evaluation Planning - 2
Dry Farmed Barley - Crop-Fallow Rotation
Beaumont-Banning Area, Calif.
1955 Prices and Costs

Average Annual Net Farm Income



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 1955 Prices and Costs

