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Developing a Marketing Strategy

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Developing a Marketing Strategy

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The first step in developing a successful marketing strategy is in deciding what to plant. Although you may have already taken steps to carry out your long run crop rotation plans, it may be profitable to take a careful look at prices and costs to check if some changes should be made in this year's cropping program.

You have three major decision areas:

1. Kind and amount of each crop to grow including areas to leave idle.
2. Amount and kind of production inputs to use -- fertilizer, herbicides, insecticides, and other inputs directly related to yield.
3. What marketing program to follow with the crops you grow -- the scheduling of the time or times of pricing, delivery, and selling.

Crop Production Strategies

You can determine the effect of different crop combinations (land use) on your farm income by making estimates of the costs and returns for each crop alternative. To prepare these, you will need to make three major judgments in terms of what you expect: (1) yields; (2) variable costs of production; and (3) market prices. You must make these judgments based on the information you have at any given time. Past experience is helpful, but you must also look ahead.

Yields. Check your recent farm records. Base your projected yield on typical or average yields, but also look at trends. Don't expect future years to be like the last year. Prepare a chart similar to Table 1 for your farm.

Comparing Alternatives. Table 2 is an example of a cost budget of producing different crops that compares alternatives to help you decide which crops to grow. In your situation, you may wish to make a different analysis -- especially if you plan to store or feed your grain and elect not to forward price your grain at this time. If so, you

Table 1. Five-year crop history for your farm

Year	Corn			Beans			C:B yield ratio
	Acres	Yield bu./ac.	Production bu.	Acres	Yield bu./ac.	Production bu.	
1975	365	130.0	47500	152	44.7	6800	2.91
1976	364	128.6	46800	242	52.1	12620	2.47
1977	429	132.8	57000	177	41.8	7400	3.18
1978	376	134.8	50700	230	56.2	12940	2.40
1979	407	165.6	67400	199	48.2	9600	3.44
1975-79 Ave.	388	138.8	53880	200	49.4	9872	2.81

Table 2. Estimated per acre production costs for 1980

Production cost item	Corn		Soybeans		Wheat		Dbl. Crop (wheat-soybeans)	
Yield per acre (bushels)	110	135	35	43	50	60	50/22	60/26
Direct cost per acre								
Fertilizer and lime*	$39.75	$49.25	$13.00	$16.00	27.75	$33.50	$34.75	$40.00
Seed and chemicals	21.50	27.25	19.75	24.25	12.00	13.00	53.00	55.00
Machine operation/drying	29.00	31.50	19.00	19.50	13.00	13.25	28.75	31.00
Interest on op. cap. & misc.	10.50	11.75	8.25	8.75	8.00	8.50	12.25	13.00
Total direct costs	$100.75	$119.75	$60.00	$68.50	$60.75	$68.25	$128.75	$139.00
Indirect costs per acre								
Machinery and equipment	$46.50	$52.00	$39.00	$41.00	$19.50	$20.50	$42.00	$44.00
Labor and management	33.00	34.50	27.50	27.50	21.00	21.00	34.50	35.00
Grain storage (bin only)	12.00	15.00	4.75	6.00	---	---	3.00	3.50
Land cost**	97.50	126.00	97.50	126.00	97.50	126.00	97.50	126.00
	$189.00	$227.50	$168.75	$200.50	$138.00	$167.50	$177.00	$208.50
Total cost per acre	$289.75	$347.25	$228.75	$269.00	$198.75	$235.75	$305.75	$347.50
Cost per bushel or ton***	$2.63	2.57	$6.53	$6.26	$3.97	$3.93	$3.97/ 4.86	$3.93/ 4.30

* Nitrogen priced at 14 cents per pound for corn and 22 cents for wheat; P_2O_5 priced at 24 cents per pound; K_2O priced at 12 cents for all crops. A corn-soybean rotation is assumed. Thus soybeans produce a nitrogen credit for corn production and no insecticide is used.

** Land costs approximate current cash rental rates.

*** Cost of producing double crop soybeans is assumed to be additional cost over growing wheat.

Table 3. Gross income per acre with various corn price and yields

Bu./A	Price per bushel $2.10	$2.20	$2.30	$2.40	$2.50	$2.60	$2.70	$2.80	$2.90	$3.00
	dollars per acre (rounded)									
150	315	330	345	360	375	390	405	420	435	450
145	304	319	334	348	362	377	391	406	420	435
140	294	308	322	336	350	364	378	392	406	420
135	283	297	310	324	337	351	364	378	391	405
130	273	286	299	312	325	338	351	364	377	390
125	262	275	287	300	312	325	337	350	362	375
120	252	264	276	288	300	312	324	336	348	360
115	241	253	264	276	287	299	310	322	332	345
110	231	242	253	264	275	286	297	308	319	330
105	220	231	241	252	262	273	283	294	304	315
100	210	220	230	240	250	260	270	280	290	300
95	199	209	218	228	237	247	256	266	275	285
90	189	198	207	216	225	234	243	252	261	270

must make a forecast of the cash price you expect to receive when the grain is delivered and sold; also, include the additional costs you think you will probably incur up to the time you sell your grain.

In determining the kind and amount of crops to grow, you need to consider many factors. After estimating yields, prices, and costs, you should also look at such items as weather variability, the capacity of your equipment to perform operations on time, the distribution and capacity of your labor supply, the grain and forage requirements of your livestock program, weed problems, the fertilizer that has already been applied, herbicide residues, input shortages (in total and in terms of delivery time), the availability of grain storage, the quality of land resources, and your personal preferences.

Market Prices. The next step is to estimate market prices. After this, you can determine the gross returns from crops you plan to raise. To facilitate planning, the tables 3 and 4 show gross returns with various prices for corn and soybeans.

Profit equals Price times Yield minus Costs of Production. Table 3 gives the gross income from various corn yields between 90 and 150 bushels per acre with corn prices ranging between $2.10 and $3.00 per bushel.

Table 4. Gross income, $ per acre, with various soybean prices and yields

Bu./A	Price per bushel $5.60	$5.80	$6.00	$6.20	$6.40	$6.60	$6.80	$7.00	$7.20	$7.40
	dollars per acre (rounded)									
50	$280	$290	$300	$310	$320	$330	$340	$350	$360	$370
48	269	278	288	298	307	317	326	336	346	355
46	258	267	276	285	294	304	313	322	331	340
44	246	255	264	273	282	290	299	308	317	326
42	235	244	252	260	269	277	286	294	302	311
40	224	232	240	248	256	264	272	280	288	296
38	213	220	228	236	243	250	258	266	274	281
36	202	209	216	223	230	238	245	252	259	266
34	190	197	204	211	218	224	231	238	245	252
32	179	186	192	198	205	211	218	224	230	237
30	168	174	180	186	192	198	204	210	216	222

Table 5. Returns per acre for corn (110 bu./acre) at various levels of production costs

Percent of cost	Price per bu. (rounded)	Returns per acre	Returns +, - costs per acre	Returns +, - costs per 100 acres
130	$3.38	$371.80	$85.80	$8580
125	3.25	357.50	71.50	7150
120	3.12	343.20	57.20	5720
115	2.99	328.90	42.90	4290
110	2.86	314.60	28.60	2860
105	2.73	300.30	14.30	1430
100 break even	2.60	286.00	0	0
95	2.47	271.70	-14.30	-1430
90	2.47	257.40	-28.60	-2860
85	2.21	243.10	-42.90	-4290
80	2.08	228.80	-57.20	-5720
75	1.95	214.50	-71.50	-7150

Table 4 gives the gross income from various soybeans yields between 30 and 50 bushels per acre with prices ranging from $5.60 and $7.40 per bushel.

Tables 5 and 6[1/] show the total costs of production for corn and soybeans as 100%, and the price necessary to cover selected percentages of production cost. For example, if the total corn production costs are $2.60 per bushel and you have a goal of making 10% profits (above all costs), you will have a target price of $2.86 per bushel. With a yield of 110 bushels per acre, you would make a net profit of $28.60 per acre or $2860 per 100 acres. This is above the $97.50 per acre land charge and the $33 per acre labor and management charge. Even though your land was purchased several years ago and is paid for, it is a good practice to use a current representative charge in calculating production costs.

The yield per acre and the land charge will greatly influence the costs per acre. Addition of a new tractor or combine on a small acreage can also boost the machinery costs per acre.

While this method provides a goal price to start your marketing program, there is no guarantee that prices will reach your goal. This is where outlook information must be used to reach a decision.

A producer should make a mental commitment to sell a portion of his expected production when he can realize his profit goal or a reasonable profit. The size of that portion sold will depend upon his outlook expectations and other factors such as his cash flow needs and his ability to withstand the uncertainty of lower prices. It is important not to sell too large a portion at one time unless sharply lower prices are expected. As the growing season progresses, the potential production will become more predictable.

Crop Pricing Strategies

As long as expected prices more than cover variable costs, you should grow crops on the land. After determining which combination of crops will produce the most net income over costs at present prices, you may wish to lock in a profit margin on part or all of your crop.

1/ Concept developed by A. A. Brazes, president, Farmcraft Service, Inc. Oxford, Indiana.

Table 6. Returns per acre for soybeans (35 bu./acre) at various levels of production costs

Percent of cost	Price per bu. (rounded)	Returns per acre	Returns +, - costs per acre	Returns +, - costs per 100 acre
130	$8.45	$295.75	$68.25	$6825
125	8.13	284.55	57.05	5705
120	7.80	273.00	45.50	4550
115	7.48	261.80	34.30	3430
110	7.15	250.25	22.75	2275
105	6.83	239.05	11.55	1155
100 break even	6.50	227.50	0	0
95	6.18	216.30	-11.20	-1120
90	5.85	204.75	-22.75	-2275
85	5.53	193.55	-33.95	-3395
80	5.20	182.00	-45.50	-4550
75	4.88	170.80	-56.70	-5670

The great uncertainty in regard to market prices for cash grains of the past few years will continue. During periods of high uncertainty, you can do two things: (1) improve your predictions of future events; and (2) improve your ability to withstand unfavorable outcomes.

A time tested strategy to withstand uncertainty is to diversify. In production, this means grow more than one crop. In marketing, this means price at more than one time during the year.

Usually, marketing or selling grains meant that delivery, transfer of title, and pricing would be almost simultaneous. New developments in the trading arrangements for grains permits the separation of these steps. Now, you can price grains separately from time of delivery and/or transfer of title. This pricing can be in either the cash or the futures market.

Futures Vs. Cash Contracting

Cash Contracting Advantages

1. Requires no cash.
2. Do not have to keep up with current prices.
3. Somewhat less risk than hedging.
4. More consoling to average farmer.

Cash Contracting Disadvantages

1. Have to deliver to place where contracted.
2. Not likely to cancel contract.
3. No basis advantage.
4. Limits flexibility.

Futures Contracting Advantages

1. Can sell cash anywhere.
2. Easier to cancel contract.
3. Have to watch markets.
4. Can get basis advantage.
5. Allows flexibility.
6. Longer time to sell.

Futures Contracting Disadvantages

1. Have to put up cash.
2. Have to keep watching market, daily.
3. Need 1000 to 5000 bu. quantities.
4. May jump in and out of markets --speculate.
5. A little more expensive than cash contracting.
6. Makes some people nervous.
7. May have to arrange financing for hedging.

You may already be spreading out your sales of cash grain after harvest. However, your diversified pricing plan can begin with some forward pricing of the crop prior to

planting at the time decisions are made to grow the crop. This plan can be for grain to be delivered at harvest or from storage later. A sample plan for corn is shown in Table 7.

The diversified pricing plan should vary with your expectation in regard to future trends in prices. Under complete uncertainty, that is, complete lack of knowledge whether crop prices will go up or down, you should price a portion of the crop if the price justifies producing the crop and will cover cost and cash flow needs. If prices are likely to improve, pricing of some portions of the crop should be delayed. On the other hand, if prices are expected to decrease, a greater portion of the crop should be forward priced.

Spreading the pricing for sales of grain may not be the most profitable strategy, but it does give less variation in year-to-year net income. If losses caused by declines from present levels place you in financial jeopardy, you should give strong consideration to making careful production, delivery, and pricing plans for your crops.

Your goal should be to receive a "good" average price for the grain sold in several parcels. A goal of selling the entire crop at the top of the market is not realistic. You will not know the market top until after it is past.

Table 7. Diversified pricing plan for corn*

	Price trend expectations					
	Uncertain		Likely to increase		Likely to decrease	
Date of pricing	Harvest delivery	Delivery from storage	Harvest delivery	Delivery from storage	Harvest delivery	Delivery from storage
	(percent of corn crop priced by periods)					
Preplant	33 1/3	20	15	10	50	40
Post plant/pre-harvest	33 1/3	20	25	10	25	20
Harvest	33 1/3	20	60	20	25	20
Post harvest						
Jan.	—	20	—	30	—	10
May	—	20	—	30	—	10
Total	100%	100%	100%	100%	100%	100%

*Hinton, R.A., Crop Production and Marketing Plans for 1977, Farm Economics Facts and Opinions, Department of Agricultural Economics, University of Illinois, Urbana, Il. February 10, 1977.

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