2002 PURDUE CROP GUIDE*

ESTIMATED PER ACRE CROP BUDGETS

Crop Budgets for Three Yield Levels[1]

	Low Yield Soil					Average Yield Soil					High Yield Soil				
	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans	Cont. Corn	Rot. Corn	Rot. Beans	Wheat	DC Beans
Expected yield in bushels per acre[2]	104.3	112.1	37.5	61.6	21.3	129.1	138.8	46.5	69.4	26.4	158.8	170.8	57.2	76.9	32.4
Harvest price per bushel[3]	$2.10	$2.10	$5.40	$2.56	$5.40	$2.10	$2.10	$5.40	$2.56	$5.40	$2.10	$2.10	$5.40	$2.56	$5.40
Crop sales per acre	$219	$235	$203	$158	$115	$271	$291	$251	$178	$143	$333	$359	$309	$197	$175
Less variable costs per acre[4]:															
Fertilizer[5]	$38	$35	$17	$30	$11	$47	$45	$20	$35	$12	$57	$56	$24	$40	$15
Seed[6]	26	26	30	13	35	30	30	30	13	35	30	30	30	13	35
Chemicals[7]	31	16	14	N/A	12	34	18	14	N/A	12	38	23	14	N/A	12
Dryer fuel @ $.80/gallon and handling	12	10	1	N/A	2	15	13	1	N/A	3	18	15	1	N/A	3
Fuel @ $0.95/gallon	7	7	7	4	3	8	8	8	4	3	9	9	9	4	3
Repairs[8]	8	8	8	4	4	9	9	9	5	4	10	10	10	5	4
Hauling	6	7	2	4	1	8	8	3	4	2	10	10	3	5	2
Interest[9]	5	4	3	2	3	6	5	4	3	3	7	6	4	3	3
Insurance/misc.	11	11	8	7	4	11	11	8	7	4	11	11	8	7	4
Total variable costs per acre	$144	$124	$90	$64	$75	$168	$147	$97	$71	$78	$190	$170	$103	$77	$81
Contribution margin[10] (Sales - variable costs) per acre	$75	$111	$113	$94	$40	$103	$144	$154	$107	$65	$143	$189	$206	$120	$94

[1] Estimated yields and costs are for normal yields with average management for three different soils representing low, average, and high productivity.

[2] Average yield based on timely plant/harvest date, except soybean double crop yield which is based on July 1 plant date. Continuous corn, soybean & wheat yields are a percent of rotation corn yield — continuous corn 93%, drill soybeans 33.5% (second year drill beans or for 30-inch beans in central Indiana 30.2%), wheat 55% on low yield, 50% on average yield and 45% on high yield soils, and double crop soybeans (South-central Indiana) 19% (Source: ID-152 "Estimating Potential Yield for Corn, Soybeans and Wheat").

[3] Harvest prices are the higher of December 31, 2001 CBOT closing prices for July wheat -$.30 basis, December corn -$.25 basis, and November beans-$.30 basis or the Tippecanoe County, 2001 loan rate.

[4] Seed, fertilizer, and chemical prices are early January quotes.

[5] Fertilizer based on tri-state fertilizer recommendations (Source: Michigan Extension Bulletin E-2567, July 1995). Lime amounts represent the pounds of standard ag lime needed to neutralize the acidity from the nitrogen supplied from sources other than ammonium sulfate. Pounds of N-P_2O_5-K_2O-lime by crop and soil: Continuous corn, 116-39-48-347, 150-48-55-449, 190-59-63-570; rotation corn, 97-42-50-290, 133-51-58-398, 176-63-66-529; rotation beans, 0-30-72-0, 0-37-85-0, 0-45-100-0; wheat, 60-39-43-181, 74-44-46-227, 87-48-48-261; double crop beans, 0-17-50-0, 0-21-57-0, 0-26-65-0. Fertilizer prices per lb.: NH_3 @ $.16; urea @ $.23; P_2O_5 @ $.23, after accounting for nitrogen @ $.16 in 18-46-0; K_2O @ $.13; lime @ $14/ton. 5-10% more nitrogen might be needed on both excessively and poorly drained soils. All soil tests for phosphorus and potassium are in the maintenance range, and the pH is in the recommended range. The potash recommendations are for a light color loam or silt loam soil with a Cation Exchange Capacity (CEC) of 10. This recommendation will vary with CEC. On each soil, these estimated yields may vary ± 10% for weather, ± 10% for management, and ± 10% for plant/harvest date.

[6] Add $7 per acre for Bt corn seed. Soybean seed prices include Round-up Ready varieties.

[7] Corn insecticide @ $16 per acre is included for continuous corn, and should be added to rotation corn in north Indiana.

[8] Repairs are based on approximately five-year-old machinery. For older machinery, per acre repairs and downtime cost will be $6-10 higher, and indirect machinery replacement costs below will be lower.

[9] Interest is based on 6.5% annual rate for 9 months for seed, fertilizer, and chemicals, and for 6 months for half the machinery fuel and repairs, and all the insurance/misc.

[10] Contibution margin is the return to the unpaid operator labor/management, machinery services, and land resources. The contribution margins, not shown above, are $95, $132, and $177 for second year drill beans on low, average, and high yield soils.

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Cooperative Extension work in Agriculture and Home Economics, state of Indiana, Purdue University, and U.S. Department of Agriculture cooperating; D.C. Petritiz, Director, West Lafayette, IN. Issued in furtherance of the acts of May 8 and June 30, 1914. The Cooperative Extension Service of Purdue University is an equal opportunity/equal access institution.

ESTIMATED PER FARM CROP BUDGETS FOR 2002

Effect on Earnings for Each of Four Crop Rotations on Three Soil Types
Using Almost the Same Machinery and Labor
After Farm Size Has Been Adjusted to Permit Timely Fieldwork

	Low Yield Soil				Average Yield Soil				High Yield Soil			
Farm Acres	900	1000	1200	1200	900	1000	1200	1200	900	1000	1200	1200
Rotation[1]	c-c	c-b	c-b c-w	c-b c-w, dc	c-c	c-b	c-b c-w	c-b c-w, dc	c-c	c-b	c-b c-w	c-b c-w, dc
Crops contribution margin[2]	$67500	$112000	$130600	$138600	$92700	$149000	$169400	$182400	$128700	$197500	$219800	$238600
Plus government payment[3]	8955	12575	17887	18483	11081	15568	21710	22449	13637	19156	26185	27092
Total contribution margin	$76455	$124575	$148487	$157083	$103781	$164568	$191110	$204849	$142337	$216656	$245985	$265692
Annual overhead costs:												
Machinery replacement[4]	45000	48500	48500	49000	48600	52100	52100	52600	54000	57500	57500	58000
Drying/handling	6300	6300	6300	6300	7200	7200	7200	7200	8100	8100	8100	8100
Family and hired labor[5]	37000	37000	37000	37000	37000	37000	37000	37000	37000	37000	37000	37000
Land @ 2001 average rent[6]	88200	98000	117600	117600	109800	122000	146400	146400	136800	152000	182400	182400
Earnings or (losses)	($100045)	($65225)	($60913)	($52817)	($98819)	($53732)	($51590)	($38351)	($93563)	($37944)	($39015)	($19808)

[1]Rotations are as follows: c-c = 900 acres continuous corn; c-b = 500 rotation corn - 500 beans; c-b, c-w = 400 corn - 400 beans plus 200 corn - 200 wheat; c-b, c-w,dc = 400 corn - 400 beans plus 200 corn - 200 wheat, double crop beans (dc).

[2]Crops contribution margin is per acre contribution margin x number of acres.

[3]Expected government payment is 2002 payment rate ($.261 for corn, $.459 for wheat) x .85 x FSA yield (assumed here to be 80% of expected rotation corn and wheat yield) x acres of farm corn and wheat base (assumed here to be 50% of farm size for corn base on all farms and 200 acres wheat on 1200 acre farms only), plus $.14 per bushel soybean oilseed payment.

[4]The same basic machinery set, which is timely for each rotation, is used on all four farms of the same soil type. A no-till drill is added for beans, and a larger combine platform is added for double-crop beans. Average annual replacement costs were calculated using the Purdue Machinery Cost Calculator for timely set of fall plow or chisel tillage. Replacement costs for no-till are about 75% of fall chisel tillage. Seven year trading policy assumed for combine and planter, ten year policy for other field machinery. On livestock farms where fewer hours each day are available for crops, or on small farms, machinery costs and/or labor costs will be higher. On well drained soils where more days are suitable for spring field work, machinery costs could be lower.

[5]Family living and/or hired labor is estimated at $37,000. In 2000, on 1,087 farms in the Illinois Farm Business Farm Management Association, family living expenses averaged $47,526 and net nonfarm income averaged $22,424.

[6]Based on cash rent @ $98/acre on low yield soil, $122/acre on average yield soil, $152/acre on high yield soil (Source: Purdue Agricultural Economics Report, September, 2001).