

ABS

APAC Budgeting System



Kelly Tiller

Ag. Policy Analysis Center
University of Tennessee

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Support and Stability, U.S., 1990-92

Year	Commodity Credit Corp				Farm/credit loans			Total payments (billions)
	Adv. payments (billions)	Term loans (billions)	Retain price without loan (billions)	Loan loss (billions)	Advance plus refinance charges (billions)	Coll. cost (billions)	Storage payments (billions)	
1990	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1991	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1992	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1993	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1994	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1995	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1996	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1997	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1998	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
1999	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2000	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2001	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2002	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2003	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2004	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2005	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2006	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2007	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2008	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2009	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2010	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2011	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2012	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2013	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2014	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2015	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2016	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2017	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2018	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2019	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2020	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2021	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2022	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2023	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2024	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2025	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2026	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2027	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2028	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2029	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36
2030	1.47	1.37	1.36	1.36	1.36	1.36	1.36	1.36

ABS Characteristics

- Created to generate consistent ASD-level budgets compatible with POLYSYS regional policy simulation model
- Generates financial cost and returns / cash to flow budgets
- Includes over 10,000 predefined crop enterprise and rotation budgets in 305 regions
- Budget generation is driven by internalized machinery and input databases

ABS Characteristics (cont'd)

- Budgets based on field-level operation schedules
- Includes only crop budgets, compatible with perennial bioenergy crops
- Budgets can be saved as XML or CSV (Excel) files
- Output tables can be printed or saved as HTML or CSV (Excel) files
- Web compatible

ABS History

- Hundreds of enterprise and rotation budgets created in 1995/96 as an Excel 4.0 spreadsheet
 - Ran slow, required lots of codes
- Java version created in 1997
 - Web-based interface
 - Locked into using pre-built budgets
- In 2000, converted the “guts” to Visual Basic
 - Well-documented and consistent
 - Compatible with multiple interfaces, .dll
- Steve Slinsky designed ABS and did early work, Brad Wilson has converted to VB

Working with ABS

- Select a regional budget, either enterprise or rotation
- Edit the budget, specifying crops, tillage, farm size, alternative nutrients, irrigation, yield, and field-level operations
- Run the budget, generating operating schedule, machine cost table, labor schedule, and summary table
- Print or save budgets in multiple formats

1. Browse Regional Budgets

- Select a state and county
 - 305 regions (ASDs)
- Select from crop enterprises or rotations
 - About 10-15 predefined budgets per region, over 10,000 available
- Select from tillage alternatives
- View summary of budget details

2. Edit Regional Budget

- Select from 185 crops
- Select from 9 tillage alternatives
 - Conventional with moldboard plow
 - Conventional without moldboard plow
 - Mulch till with 30%-50% residue
 - Mulch till with 50% residue
 - Ridge till
 - No till
 - Limited till
 - Conservation tillage
 - Other

2. Edit Regional Budget (cont'd)

- Select from 7 farm sizes
- Select from 6 alternative nutrients (or none)
- Select from 4 irrigation types
- Specify yield
- Specify field-level operations

Budget Editor

Basic Regional Budget | **Current Budget** | Data Tables

Crop Name	Corn	Region Type	NO YS-F
Tillage	Conventional with Moldboard Plow	Region ID	61
Farm Size	Large	Current Year	1996
Alternative H. Name	None	Current Month	01-06
Region	NY	Previous Year	1995
Soil Type			

Print this Budget
 Print all Budget

Month	Day	Machinery Name	Power Source	Chemical Name	LOG	Chemical Name	Rate	Units	A	Other Description	Quantity	Units
3	5	Case IH 250 DT150	Tractor 2wd 150hp (c level)									
4	5	Tractor Disk (w/ 40" dia)	Tractor 2wd 150hp (c level)									
4	15	Day Plan Sprayer (c level)		Ammonium Nitrate (35%)	250							
4	15	Day Plan Sprayer (c level)		10-20-10	200							
1	20	3 Row Planter (regul)	Tractor 2wd 150hp (c level)							Com Ecod Hybrid	31	hours
1	20	Chem Applicator GE300 (c level)		Lindane 1E (Chlorpyrifos)				PT	15			
5	15	Chem Applicator GE300 (c level)	Tractor 2wd 150hp (c level)	Alachlor (Alachlor)			0.59:399:	PI	1.8			
5	15	Chem Applicator GE300 (c level)		Lindane 1E (Alachlor)				LI	3			
7	18	Case IH 250 DT150										
7	18	Case IH 250 DT150										
1	5	Day Plan Sprayer (c level)	Tractor 2wd 150hp (c level)	Lindane	1000							

Field-Level Operations

- Machinery database includes 286 options
- Fertilizer database includes 82 options
- Chemicals database includes 403 options
- Specify chronological list of field operations, including
 - Date – month and day
 - Machinery – machine name and tractor
 - Fertilizer – name and pounds/acre
 - Chemicals – name, rate, units, active ingredient
 - Other inputs – name, quantity, units

Budget Editor

Browse Regional Budgets | **Grow/Fit Package** | Default Tables

Crop Name: Region:
 Title: Region ID:
 System:
 Alternative Name: Current Year:
 Budget: Current Date:
 Job Type: Previous Year:

Enterprise Budget
 Transfer Budget

Month	Day	Mechanical Name	Power Name	Fertilizer Name	LLS	Chemical Name	Rate	Units	AI	Other Input Name	U
4	15	Chem Applicator GE301 (no license)	Traction Swc 35 hp (3 axle)			Fenoxpro 4E (Glyphosate)	3	GT	3		
4	15	Chem Applicator GE301 (no license)				Flordia 4 (Cyromazine)	3.75	GT	3.75		
4	28	Dry-Fort Spreader (self-prop)	Traction Swc 35 hp (3 axle)	22-15-15	400						
5	1	/How North Plaster	tractor Swc 75 hp (3 axle)							LT Cotton Seed	15
5	1	Chem Applicator (self-prop)	M, 8000 Operation			Granular Extra 25.0 (Para)	1.0	PT	0.00000		
5	1	Chem Applicator (self-prop)				Crotone 4 (Furmetame)	2	PT			
5	1	Self Prop (no license)				Flow 4E (Round up herbicid)	1.3	PT	0.3		
5	1	Small Chem Applicator (self-prop)				Terrachlor 2EC (PCNE)	5	PT	0.40000		
5	1	Chem Applicator GE301 (no license)	tractor Swc 35 hp (3 axle)			am 150 (Aldicarb)	5.0	LL	0.00000		
5	1	Chem Applicator GE301 (no license)	Traction Swc 35 hp (3 axle)			Belt 8 (Dinopropos)	4.50000	CC	0.50000		
5	1	Chem Applicator GE301 (no license)	Traction Swc 35 hp (3 axle)			Crotone 4 (Furmetame)	1.1	PT	0.10000		
5	1	Granular Spreader (30)				MEBA 28	1.5	PT	1.35		
5	1	Granular Spreader (24)	tractor Swc 35 hp (3 axle)			Gulfon 2 (Gly plus methyl)	0.75	PI	0.19		
5	15	Chem Applicator UL301 (no license)	tractor Swc 35 hp (3 axle)			Fusilade 202.0 (oxycarb)	0.4	PI	0.12		
6	28	Chem Applicator GE301 (no license)	Traction Swc 35 hp (3 axle)			Flx 301 (400 count, 3 axle)	0.1	PT	0.12		
6	28	Chem Applicator GE301 (no license)	Traction Swc 35 hp (3 axle)			Gulfon 2 (gly plus methyl)	0.75	PT	0.19		
6	2	Chem Applicator GE301 (no license)	Traction Swc 35 hp (3 axle)			Gulfon 2 (gly plus methyl)	0.75	PT	0.19		
9	08	Custom Aerial Chemical Application	Self-Propelled			LL 1 (Inhibitor)	1.0	PI	0.40000	Custom Aerial Application	
9	15	Cotton Picker (self-prop)	Self-Propelled								
9	15	Cotton Picker	Traction Swc 35 hp (3 axle)								
9	25	Cotton Picker (self-prop)	Self-Propelled								
9	25	Cotton Picker	tractor Swc 75 hp (3 axle)								
9	27	Cotton Module Loader	tractor Swc 75 hp (3 axle)								
1	28	Factory Worker	Traction Swc 35 hp (3 axle)								
12	15	Dry-Fort Spreader (self-prop)	Traction Swc 35 hp (3 axle)	1 meashor	100						

Internal Databases

- Machinery database (286 pieces)
 - State-level machinery price data from ERS
 - Uses standardized machinery and labor efficiency equations from ASAE
- Fertilizer database (82 fertilizers)
 - Prices from *AgPrices* (NASS), by multi-state USDA Fertilizer Regions
 - Fertilizer formulation data used to calculate mixture prices using regional elemental prices
- Chemicals database (403 chemicals)
 - Prices from *AGCHEMPRICE*
 - Includes formulation information and crop restrictions, useful for developing rotation budgets

M/C/A/H	POWER	BASE	MPP1	MPP4	MPP5	MPP6	MPP8	MPP9	MPP9	MPP10	MPP12	MPP13	MPP16	MPP18
	(HP)	(BASE)	(M)	(A)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)	(M)
Roller	SP	C	1	1	1	1	1	1	1	1	1	1	1	1
Multiple Operation	SP	C	1	1	1	1	1	1	1	1	1	1	1	1
No Implement	SP	C	1	1	1	1	1	1	1	1	1	1	1	1
Harvest Operation	SP	C	1	1	1	1	1	1	1	1	1	1	1	1
Ducted Cultivar	3495	1.049032	1.227126	1.537085	1.387013	1.293832	1.468536	1.158757	1.468536	1.300722	1.139657	1.41		
Field Cultivar CE15ft	3490	0.997935	0.54385	1.150663	1.049465	0.922727	0.387632	0.881016	0.822388	0.792683	1.094497	1.16		
Field Cultivar LT15ft	3495	1.049032	1.227126	1.537085	1.387013	1.293832	1.468536	1.158757	1.468536	1.300722	1.139657	1.41		
Front-end Loader	4203	0.882729	1.183938	1.530273	1.430833	1.248826	0.879930	0.403584	0.840714	0.832697	1.136844	0.9		
Mower (Cylinder)	4776	0.862775	1.18393	1.536774	1.37107	1.273859	0.879188	0.7634	0.819365	0.835787	1.13757	0.9		
Trailer	6/13	1.00267	1.215735	1.036029	1.39513	1.263353	0.761632	0.733715	0.960377	0.971697	1.27573	0.6		
Rolling Cultivar LT 5ft	4279	1.267352	1.16903	1.011313	1.632157	1.274831	0.953931	0.963777	1.243746	1.136247	1.19003	1.17		
Roller Cultivar CE15ft	5482	1.08257	1.215672	1.0388	1.385454	1.2534	0.761626	0.733856	0.90048	0.971622	1.275672	0.8		
Roller Cultivar LT 5ft	3626	1.267059	1.167565	1.031422	1.632204	1.274807	0.953939	0.963341	1.24536	1.136453	1.137565	1.17		
Disc harrow	7122	1.064027	1.302443	1.498627	1.324489	1.263138	1.382758	1.035864	1.024572	1.074893	1.274263	1.15		
Cultivar Roller CE18ft	17287	0.881778	0.64388	1.14063	1.049158	0.917085	0.383125	0.881021	0.83275	0.781335	1.09817	1.3		
Cultivar Roller LT18ft	4937	1.016031	1.277007	1.37107	1.38701	1.240007	1.408439	1.138817	1.40376	1.30076	1.17008	1.41		
Cultivar Pulverizer	4239	1.061038	1.302060	1.39753	1.52467	1.309065	1.383515	1.03065	1.025176	1.075038	1.274673	1.10		
Landplane-Leveler	4477	1.22627	0.75564	0.90653	1.057107	0.913335	1.392979	0.873705	1.43757	0.90654	0.871673	0.6		
Landall Do-all	7122	1.064027	1.302443	1.498627	1.324489	1.263138	1.382758	1.035864	1.024572	1.074893	1.274263	1.15		
Custom Aerial Chemical Appl	SP	C	1	1	1	1	1	1	1	1	1	1	1	1
Leveling Machine	22710	1.22339	0.755656	0.906423	1.057352	0.913518	1.392939	0.873822	1.437397	0.90678	0.871863	0.6		
Utility Loader-Harlow	14262	0.978436	0.638162	1.053425	0.938162	1.134053	1.445	1.038153	0.88131	0.958315	0.881625	1.1		
Roller-packer	713	1.064731	1.302817	1.498757	1.328344	1.263014	1.383030	1.033805	1.023357	1.075493	1.274035	1.3		
Roller-packer FlatRoller	713	1.061739	1.307817	1.398757	1.32674	1.263017	1.383039	1.033805	1.023357	1.075493	1.274035	1.3		
Sand Lighter	603	1.061145	1.302032	1.39773	1.324613	1.263121	1.383221	1.033197	1.025116	1.074803	1.273613	1.15		
Seedbed Roller	5072	1.064274	1.302039	1.400762	1.32433	1.263479	1.382036	1.033489	1.024342	1.074707	1.274314	1.15		
Laser Planer	6324	1.22438	0.755659	0.906573	1.057393	0.91351	1.393132	0.873926	1.437912	0.90659	0.871600	0.6		
Flattening Harrow CE15ft	6743	0.997978	0.543754	1.150467	1.049283	0.922406	0.386878	0.88394	0.8227	0.791697	1.09813	1.16		
Flattening Harrow LT15ft	6719	1.049131	1.227326	1.537503	1.387482	1.293857	1.468031	1.15896	1.467239	1.301193	1.139912	1.41		
Flattening Harrow CE20ft	2444	0.881307	0.644137	1.140643	1.049027	0.917085	0.383125	0.881021	0.832332	0.781335	1.098473	1.3		
Flattening Harrow LT20ft	1477	1.016726	1.273811	1.371073	1.380041	1.240077	1.40781	1.139367	1.403806	1.300039	1.139005	1.41		
Powered Spike tooth Harrow	1731	0.9167	1.082006	1.34062	1.122655	1.073766	1.68036	0.892757	0.862333	0.979207	1.080714	1.27		
Spike-tooth Harrow ST25ft	1040	0.99607	0.543723	1.150574	1.049704	0.923701	0.387229	0.881454	0.822332	0.792489	1.096039	1.16		
Spike-tooth Harrow CE25ft	767	1.04824	1.225954	1.537153	1.387223	1.293047	1.468957	1.158867	1.46545	1.29987	1.138214	1.41		
Springtooth Harrow CE15ft	3350	0.99797	0.543582	1.150143	1.048857	0.922388	0.386776	0.883567	0.822537	0.791797	1.09567	1.16		
Springtooth Harrow LT15ft	2050	1.049053	1.227205	1.536663	1.386595	1.293461	1.46813	1.15906	1.467217	1.301143	1.139243	1.41		
Soil Finisher	7127	1.064027	1.302443	1.498627	1.324488	1.263138	1.382758	1.035864	1.024572	1.074893	1.274263	1.15		
Rotary Harrow	3432	1.088361	1.174803	1.020363	1.26774	1.073603	1.26811	1.034321	1.244406	1.230387	0.9824	0.9		
Rotary Mower	3897	1.216936	0.675109	1.113657	1.091352	0.697789	0.971539	0.80106	1.165327	1.11265	0.73051	0.6		
Rotary	6593	1.063523	1.302306	1.397677	1.321125	1.263965	1.382077	1.033369	1.024335	1.074657	1.274177	1.15		
Rotocult	10348	1.064054	1.302445	1.49826	1.324379	1.263214	1.382556	1.033462	1.02434	1.074677	1.27432	1.15		
Rotocult-Beeder	6072	1.064274	1.302839	1.498762	1.32433	1.263479	1.382836	1.033489	1.024342	1.074787	1.274214	1.15		

FID	F-Name	Unit	N%	P%	K%	US Price (\$/lb) F-50	F-50 (lb) F-50	Max/Min	North/South	South/East	North/West	South/Centre	South
21	N	B	1	0	0								
20	Ammonium Nitrate (33.5%)	D	0.335	0	0	3.117	1.01	0.99	0.98	1.16	0.9	1.07	1.07
24	Anhydrous Ammonia	D	0.81	0	0	3.152	1.02	1.32	1.01	-	0.94	1.51	1.12
44	Aqua Ammonia (22%-25%)	B	0.235	0	0	3.057	1	1	1	-	1	1.09	1
45	Nitrate of Soda (18% N)	B	0.18	0	0	3.128	1.05	1	1	-	1	1	1.08
46	Nitrogen Solution 28%	B	0.28	0	0	3.086	0.99	1	0.98	-	0.98	1	1.05
47	Nitrogen Solution 30%	H	0.3	0	0	3.051	1	1	1	1.2	1	1	1.08
48	Nitrogen Solution 32%	R	0.32	0	0	3.055	0.98	1	0.98	-	1.03	1.13	0.95
49	Glycine of Ammonia (20.5%)	D	0.2075	0	0	3.062	1	0.94	1.09	1.02	1	1.01	0.91
25	Urea (44%-46% N)	D	0.45	0	0	3.139	0.97	1.03	0.99	1.13	0.93	1.14	0.94
22	F205	B	0	1	0								
50	Triple Superphosphate (44% K2O)	B	0	0.45	0	3.129	0.98	1.07	0.97	1.05	0.95	1.1	0.86
	Minor of Potash (30% K2O)	H	0	0	0.6	3.067	1.05	1.06	0.99	-	1.02	1.07	0.91
01	0-20-20	H	0	0.2	0.2	3.067	1.0700000	1	1	1.0000000	1	1.0000000	1.00
39	0-20-40	B	0	0.2	0.2								
52	0-45-45	D	0	0.45	0.45								
53	3-9-9	D	0.03	0.09	0.09								
54	3-9-18	B	0.03	0.09	0.18								
55	4-8-12	B	0.04	0.08	0.12								
37	5-13-5	B	0.05	0.1	0.05								
56	5-13-10	H	0.05	0.1	0.1	3.0675	1	1	1	1.0400000	1	1	1.04
35	5-13-15	R	0.05	0.1	0.15	3.0675	1.0084730	1	1	-	1	1	1
57	5-20-20	D	0.05	0.2	0.2	3.060	1	1	1	-	1	1	1
58	6-6-6	D	0.06	0.06	0.06	3.0675	1	1	1	-	1	1	1
59	6-12-12	B	0.06	0.12	0.12	3.0835	1	1	1	-	1	1	1
32	6-24-24	B	0.06	0.24	0.24	3.116	0.95259620	1	1	1.0172415	1	1	1
60	8-8-8	B	0.08	0.08	0.08	3.0805	1	1	1	-	1	1	1
61	8-14-24	H	0.08	0.14	0.14								
62	8-17-16	R	0.08	0.17	0.16	3.1303	1	1	0.9470213	-	1.0007708	1	1
30	10-10-10	D	0.1	0.1	0.1	3.060	0.90336030	1	1	1.0511365	1	1	1.02
63	10-15-15	D	0.1	0.15	0.15								
64	10-20-10	B	0.1	0.2	0.1	3.1085	1	1	0.9539170	1.0463629	1	1	0.97396852
36	10-20-20	B	0.1	0.2	0.2	3.115	1	1	1	1.0089465	1	1	1
28	10-34-0	B	0.1	0.34	0	3.1275	1	1.0078491	0.9892952	1.1204117	0.9896274	1.1809021	0.92540019
29	11-52-0	H	0.11	0.52	0	3.165	1	0.9823703	0.9105715	0.9100867	0.9482910	1.0700871	1
65	12-13-12	H	0.12	0.12	0.12								
31	12-13-13	B	0.12	0.13	0.13	3.1025	1.00970006	1	1.0878013	-	1	1	0.91334110
33	15-15-15	D	0.15	0.15	0.15	3.121	0.95363630	1	1	0.9623008	1	1	1
66	15-40-20	D	0.15	0.4	0.2								
67	16-20-0	B	0.16	0.2	0	3.1295	1	0.9957520	1	-	0.9305010	1	0.83397633

CA7	NAME	UNIT	occured	BLE AI	Cher	EPIC		MPP10	MPP12	MPP13	MPP16	MPP17	MPP18	MPP19	MPP24
4	Ambush 25G (Fenitrothion)	LR	0.5	64	1	14	0 0	-	1	1	1	1	1	1	1
4	Ambush 25 (Permethrin)	GA	2	1043	1	14	0 0	-	1	1	1	-	1	1	-
4	Asana 19EC (Fenvalerate)	GA	19	66.06	1	17	0 0	-	1	1	1	-	1	1	-
4	Asana 2L (Fenvalerate)	GA	0.673	192.42	1	17	0 0	-	1	1	1	-	1	1	-
4	Proxone 16F (Imidacloprid)	GA	1.6	250	1	0	0 0	-	1	1	1	-	1	1	-
4	Comite 8.5G (Propargite)	GA	6.5	12.04	1	0	0 0	1.186797	1.466687	1.200722	1.109957	1.417993	1.406524	0.957143	1.166
4	Counter 50 (Tebucon)	LB	0.15	11.73	1	61	0 0	3.881316	0.932898	0.782088	1.083467	1.162432	1.118934	1.286694	1.286
4	Agri-Dow 0.56C	GA	0.15	70	1	0	0 0	1.186797	1.466687	1.200722	1.109957	1.417993	1.406524	0.957143	1.166
4	Anaram 18.5HC (Diflufenic Acid)	GA	0.136	1541.41	1	0	0 0	0.065034	0.946171	0.800407	1.06844	1.085437	0.980533	0.987516	1.044
4	Aniram 18.5HC (Diflufenic Acid)	GA	0	15	1	0	0 0	0.7054	0.946171	0.800407	1.06844	1.085437	0.980533	0.987516	1.044
7	Dasamid 3 (Dazomet)	LD	0.99	2.03	1	0	0 0	0.729716	0.960577	0.871567	1.215739	0.865512	0.926547	1.060531	1.071
4	DG VIA 3.6L (Sodium Methane)	GA	3.6	2.22	1	0	0 0	0.963777	1.243749	1.133247	1.16903	1.175978	0.903384	1.221313	1.200
4	Ethion 4 EC (2-4-D)	GA	4	847	1	0	0 0	0.729958	0.96049	0.871622	1.215872	0.865372	0.926705	1.060601	1.071
4	Insect 70WT (Thiostez)	LB	0.7	6.6	1	0	0 0	0.965341	1.24369	1.133439	1.167585	1.175576	0.984037	1.221534	1.206
4	Lernado 90WSP (Methomyl)	LB	0.0	23.33	1	0	0 0	1.095364	1.024572	1.014885	1.214286	1.159546	1.107133	0.96684	0.902
4	Sar 1.80S (Carbaryl)	LR	0.8	0.93	1	121	0 0	0.880631	0.930715	0.841985	1.083311	1.101307	1.18826	1.204931	1.201
4	Sar 1.814 Plus (Carbaryl)	GA	4	8.63	1	124	0 0	1.096801	1.001715	1.000715	1.11008	1.118271	1.008113	0.954126	1.101
4	N Sarve 3 (N-capryl)	GA	2	10.00	1	0	0 0	1.030368	1.025778	1.010068	1.214075	1.109913	1.107537	0.970252	0.905
4	Payoad 15G (Acaphete)	LD	0.15	15.0	1	0	0 0	0.878702	1.43757	0.903634	0.671070	0.801504	0.973799	0.906471	0.964
4	RyzUp 15 (Siberic Acid)	GA	0.45	421.55	1	0	0 0	1.025364	1.024572	1.014883	1.214286	1.159546	1.107133	0.96684	0.902
4	Dipel 2X (B)	LB	0.075	133.28	1	0	0 0	1.008367	1.259496	1.059486	1.011687	0.962422	0.952423	0.952423	0.977
4	Dipel 4L (B)	GA	4	6.2	1	0	0 0	0.878983	1.43763	0.903731	0.671865	0.801528	0.973688	0.906370	0.964
4	Concor (B)	GA	1	21.01	1	0	0 0	1.062109	0.956131	0.868916	0.671926	1.02035	1.198112	1.139751	1.106
4	Winnor 1HC (Imaza-Cyprazin)	GA	1	254	1	0	0 0	1.025302	1.025532	1.015465	1.214065	1.101372	1.108451	0.971831	1.004
4	Cygon 40 WFC (Dimethate)	GA	4	0.75	1	64	0 0	1.025302	1.025532	1.015465	1.214065	1.101372	1.108451	0.971831	1.004
4	Dimethate 2.67EC	GA	2.67	6.61	1	0	0 0	1.025161	1.025116	1.014802	1.213016	1.101191	1.101397	0.970056	0.907
4	Dimethate 4DC	GA	4	7.53	1	0	0 0	1.025406	1.024542	1.014707	1.214314	1.159997	1.107256	0.970435	0.902
4	Force 3C (Teflutrin)	LB	0.03	152	1	0	0 0	0.878336	1.437613	0.903838	0.671909	0.801546	0.973719	0.906390	0.964
4	Disyston 15C (Disulfoton)	LB	0.15	0.67	1	80	0 0	0.88034	0.9327	0.781907	1.083318	1.02168	1.18855	1.286699	1.255
4	Disyston 8E (Disulfoton)	GA	8	8.13	1	80	0 0	1.09636	1.067233	1.011103	1.110312	1.118380	1.110034	0.954438	1.106
4	Dynatec 820S (Cyromazine)	LR	0.7	81	1	88	0 0	0.881798	0.930533	0.842636	1.083478	1.101736	1.111134	1.254075	1.203
4	Dynatec 7 EC (Cyromazine)	GA	4	11.26	1	88	0 0	1.026387	1.008139	1.003609	1.109005	1.124110	1.110791	0.957143	1.100
4	Dylox 033P (Trichlorfon)	LD	0.0	7.79	1	08	0 0	0.682757	0.962033	0.879261	1.088711	1.21996	1.256705	1.20131	1.017
4	Diazinon AG500	GA	4	14.53	1	0	0 0	0.881494	0.932533	0.782403	1.083029	1.0342	1.15599	1.257035	1.255
4	Diazinon 4E	GA	4	6.23	1	0	0 0	1.136397	1.46645	1.29387	1.108214	1.41721	1.406083	0.957888	1.165
4	Diazinon 50WP	LB	0.5	10	1	0	0 0	0.880507	0.932537	0.781761	1.08597	1.02388	1.18507	1.256119	1.255
4	Furadan 15G (Carbofuran)	LB	0.15	16.33	1	103	0 0	1.13636	1.467217	1.303146	1.110243	1.41864	1.410538	0.957212	1.166
4	Furadan 4 (Carbofuran)	GA	4	16.34	1	103	0 0	1.025964	1.024712	1.014885	1.214286	1.159546	1.107133	0.96684	0.902
4	Guthion 2S (Azinphos Methyl)	GA	2	15	1	111	0 0	1.021306	1.244518	1.053881	0.6554	1.081683	0.901736	0.901333	1.021
4	Guthion 35WP (Azinphos Methyl)	LB	0.35	10.76	1	112	0 0	0.90738	1.180527	1.11299	0.79901	0.907337	0.900538	0.981731	1.000
4	Kalchane 35WP (DIOFOL)	LD	0.35	21.39	1	122	0 0	1.025366	1.021636	1.014967	1.214117	1.159123	1.106995	0.966611	0.902
4	Kalchane MF (ALD) (DIOFOL)	GA	4	15	1	122	0 0	0.95482	1.03464	1.014977	1.21432	1.159529	1.107133	0.966909	0.902
4	Lernado L (Methomyl)	GA	1.8	25.73	1	124	0 0	1.025486	1.024842	1.014767	1.214314	1.159997	1.107256	0.970435	0.902

3. Run the Budget

- Generates 4 output tables
 - Operating schedule
 - Machine cost table
 - Labor schedule
 - Summary table

Budget Output - Operating Schedule

Basic Regional Budget | Class, E, J Budget | Data Tables

Operating Schedule | Machine Cost Table | Labor Formulas | Savings Table

Date		Machine Name	Tractor Name	Machine Time	Labor Time	Fertilizer		Chemical			Other Inputs	
Month	Day					Name	Tons	Name	Rate	Units	At/Acre	Name
3	14	Quad Row C (100)	Tractor 2nd 150 hp (100)	0.001	0.001							
4	1	Tractor 2nd (prog) (100)	Tractor 2nd 150 hp (100)	0.004	0.004							
4	13	Day Part Sprinkler (no labor)	--	0	0	Ammonium Phosphate (17-18-0)	200.0					
4	17	Day Part Sprinkler (no labor)	--	0	0	12-30-30	300					
4	21	Quad Row C (prog) (100)	Tractor 2nd 150 hp (100)	0.01	0.01						Chemical Hybrid	20
4	27	Chem. Applicator (100) (no labor)	--	0	0			Tractor 2nd (100) (prog)	1	PT	5	
5	11	Chem. Applicator (100) (no labor)	Tractor 2nd 150 hp (100)	0.001	0.001			Adiantum (100) (prog)	2.0	PT	1.0	
5	12	Chem. Applicator (100) (no labor)	--	0	0			Tractor 2nd (100) (prog)	3	OT	3	
11	10	Quad Row C (100) (prog)	--	0	0							
11	11	Quad Row C (100) (prog)	--	0	0							
11	18	Day Part Sprinkler (no labor)	Tractor 2nd 150 hp (100)	0.001	0.001	Urea	100.0					

Machine Cost Table

APAC Budgeting system - [Budget Window 1]
 Budget Catchers

Budget Output - Machine Cost Table

Browser Region of Budgets | Create/Edit Budget | Info/Utilities

Operating Schedule | **Machine Cost Table** | Labor Schedule | Summary Table

Machine Name	Total Hours Per Acre	Repair Cost Per Hour	Fuel Cost Per Hour	Lube Cost Per Hour	Cost Per Hour		Cost Per Acre	
					Fixed	Variable	Fixed	Variable
Circle Drive (T-57)	3.083	1.001	0.000	0.000	0.517	1.301	0.043	0.083
Tireless Disk (reg) (G2) (S-1)	3.107	0.800	0.000	0.000	0.541	0.900	0.038	0.067
Dry Fert Spreader (trailer mt'd)	3.067	1.201	0.000	0.000	1.719	1.301	0.100	0.100
8 Row Planter (regular)	3.100	0.800	0.000	0.000	0.570	0.900	0.017	0.000
Chem Applicator (G2) (trailer mt'd)	3.089	0.701	0.000	0.000	1.074	0.701	0.041	0.000
Combine w/ Row Header 2wd (self-prop)	3.000	0.700	6.604	0.000	6.327	3.324	0.000	0.000
Single-row Tractor (reg) (self-prop)	3.000	0.800	14.200	0.000	9.010	10.300	0.000	0.000
							0.300	0.360

Labor Schedule

APAC Budgeting System - [Budget Window 1]
Be Budget Estimates

Budget Output - Labor Schedule

Buttons: Regional Budget | Close/Edit Budget | Print | Help

Operating Schedule | Machine Cost Table | **Labor Schedule** | Summary Table

Month	Labor (hrs/acre)		Month	Labor (hrs/acre)
January	0.000		April	0.226
February	0.000		May	0.043
March	0.091		June	0.300
First Quarter	0.091		Second Quarter	0.371
July				
July	0.000		October	0.300
August	0.000		November	0.000
September	0.000		December	0.000
Third Quarter	0.000		Fourth Quarter	0.300
Year Total 0.456				

Budget Output - Summary Table

Review Budget Budgets Create/Edit Budget Data Tables

Operating Schedule Machinery Cost Table Labor Schedule **Summary Table**

Category	Name	Units	Quantity	Price/Unit	Amount
Revenue					
Revenue	Cash	31	9032	2.00	18079
Subtotal					18079
Variable Costs					
Seed	Commercial Hybrid		21	0.95	200
Subtotal					200
Fertilizer & Lime	Ammonia Nitrate (30% N)	4	2400	0.12	288
	Urea	4	200	0.10	200
	Diamide	2E	1000	0.01	100
Subtotal					688
Herbicides	A Alachlor (Alachlor)	1	15	0.12	44
	Ethion (Aldrin)	0.1	1	0.40	134
Subtotal					178
Insecticide	Carbaryl (Diazinon)	2E	3	0.36	108
Subtotal					108
Other	Interest on Operating Capital	AC	1	5.03	503
Subtotal					503
Machinery	Repairs, Fuel, and Oils	AC	1	0.36	136
Subtotal					136
Total Variable Expenses					9486
Return Above Variable Expenses					10393
Machinery Fixed					
Machinery Fixed	Depreciation, Interest, Insurance and Storage	AC	1	0.25	25
Subtotal					25
Labor					
Labor	Flexible Overhead (variable overhead)	3E	0.384	1.34	134

Output

- Generates 4 separate output tables
 - Each may be saved in
 - HTML – web output
 - CSV – spreadsheet output
 - Each may be printed
- Budgets may be processed in batch files
- Output files may be tailored to physical process models, e.g., EPIC, Century

Limitations

- Databases need to be updated, generally use 1996-1997 data
- Assumes crop is sold at harvest, does not allow crop storage, alternative marketing strategies
- Does not include government program payments, crop insurance alternatives
- Does not allow alternative tenancy arrangements

ABS Status

- Generates enterprise and rotation budgets
- Easy-to-use Windows front-end
- Web compatible but not yet available web-based
 - Would like to offer user accounts to save preferences and override database defaults
- Databases need to be updated
- Generally used in-house, plan to make it more widely available in the future

For More Information ... www.agpolicy.org

Agricultural Policy
Analysis Center
The University of
Tennessee
Dept. of Agricultural
Economics
310 Morgan Hall
Knoxville, TN 37996-
4519



The screenshot shows the homepage of the Agricultural Policy Analysis Center (APAC) website. The browser window title is "APAC | Agricultural Policy Analysis Center | Home | Internal | Online". The address bar shows "http://www.agpolicy.org". The page features a blue sidebar on the left with the APAC logo and navigation links: "Home", "About APAC", "APAC LISTINGS", "Publications", and "Contact Us". The main content area is titled "AGRICULTURAL POLICY ANALYSIS CENTER online" and includes sections for "Weekly Agricultural Policy Articles by Darryl E. Ray" (with a link to "Article no. 29 - Are we counting coasts?"), "Projects and Research" (with a link to "APAC Study - Policy Impacts of the APAC Study, 2002-2003"), "Presentations" (with a link to "Expectations vs. Experience: Use of Tobacco Settlement Payments in Major Tobacco States"), and "Publications" (with a link to "Impacts of Tobacco Programs & Production Changes on Tennessee's Economy").