

Philosophy of the Decision Aids

- The Univ of Illinois/Watt & Assoc
 - Has good eye appeal
 - Focus on case study farms for every county in the U.S.
 - Do allow a custom farm analysis
 - Save data on your computer
- NAAFP (AFPC/FAPRI)
 - Individual or multi-client user
 - Enter data farm # by farm #, by crop and practice
 - Update price forecast monthly
 - Initially answer FSA sign-up questions

Wheat – FSA Programs

User-Specified Type

FSA – “All Wheat”

Winter Wheat (Type 11)

Spring Wheat, exc. Durum (Type 12)

Durum Wheat (Type 15)

All Wheat Price

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graph LR; A[Winter Wheat (Type 11)] --> D[All Wheat Price]; B[Spring Wheat, exc. Durum (Type 12)] --> D; C[Durum Wheat (Type 15)] --> D;
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Wheat – Insurance Analysis

User-Specified Type

Simulated Prices

Winter Wheat (Type 11)

Winter Wheat (Type 11)

Spring Wheat, exc. Durum (Type 12)

Spring Wheat, exc. Durum (Type 12)

Durum Wheat (Type 15)

Durum Wheat (Type 15)



WINTER	Projected			Harvest		
	Exchange	Month	Date Range	Exchange	Month	Date Range
Alabama	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
Arizona	KCBT	JULY	Sept 15-Oct 14	KCBT	JULY	June 1-June 30
Arkansas	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
California (All Other Counties)	KCBT	JULY	Sept 15-Oct 14	KCBT	JULY	June 1-June 30
California (Lassen, Modoc, Shasta, & Siskiyou)	CBOT (-0.13)	SEPT	Aug 15-Sep 14	PME (Aug PME Cash)	N/A	Aug 1-Aug 31
Colorado	KCBT	SEPT	Aug 15-Sep 14	KCBT	SEPT	July 1-July 31
Delaware	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Florida	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
Georgia	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
				PME (Aug PME Cash)		
Idaho	CBOT (-0.13)	SEPT	Aug 15-Sep 14	Cash)	N/A	Aug 1-Aug 31
Illinois	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Indiana	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Iowa	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Kansas	KCBT	JULY	Aug 15-Sep 14	KCBT	JULY	June 1-June 30
Kentucky	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
Louisiana	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
Maryland	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Michigan	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Mississippi	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
Missouri	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Montana	KCBT	SEPT	Aug 15-Sep 14	KCBT	SEPT	Aug 1-Aug 31
Nebraska	KCBT	SEPT	Aug 15-Sep 14	KCBT	SEPT	July 1-July 31
				PME (Aug PME Cash)		
Nevada	CBOT (-0.13)	SEPT	Aug 15-Sep 14	Cash)	N/A	Aug 1-Aug 31
New Jersey	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
New Mexico	KCBT	JULY	Aug 15-Sep 14	KCBT	JULY	June 1-June 30
New York	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
North Carolina	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
Ohio	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Oklahoma	KCBT	JULY	Aug 15-Sep 14	KCBT	JULY	June 1-June 30

WINTER	Projected	Month	Date Range	Harvest	Month	Date Range
	Exchange			Exchange		
				PME (Aug PME		
Oregon	CBOT (-0.13)	SEPT	Aug 15-Sep 14	Cash)	N/A	Aug 1-Aug 31
Pennsylvania	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
South Carolina	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
South Dakota	KCBT	SEPT	Aug 15-Sep 14	KCBT	SEPT	July 1-July 31
Tennessee	CBOT	JULY	Aug 15-Sep 14	CBOT	JULY	June 1-June 30
Texas	KCBT	JULY	Aug 15-Sep 14	KCBT	JULY	June 1-June 30
				PME (Aug PME		
Utah	CBOT (-0.13)	SEPT	Aug 15-Sep 14	Cash)	N/A	Aug 1-Aug 31
Virginia	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
				PME (Aug PME		
Washington	CBOT (-0.13)	SEPT	Aug 15-Sep 14	Cash)	N/A	Aug 1-Aug 31
West Virginia	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	July 1-July 31
Wisconsin	CBOT	SEPT	Aug 15-Sep 14	CBOT	SEPT	Aug 1-Aug 31
Wyoming	KCBT	SEPT	Aug 15-Sep 14	KCBT	SEPT	Aug 1-Aug 31

SPRING	Projected			Harvest		
	Exchange	Month	Date Range	Exchange	Month	Date Range
Alaska	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
California (Lassen, Modoc, Shasta, & Siskiyou)	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Colorado	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Idaho	MGE	SEPT	Aug 15-Sept 14	MGE	SEPT	Aug 1-Aug 31
Iowa	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Maine	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Minnesota	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Montana	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Nebraska	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Nevada	MGE	SEPT	Aug 15-Sept 14	MGE	SEPT	Aug 1-Aug 31
North Dakota	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Oregon (Klamath)	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Oregon (all others)	MGE	SEPT	Aug 15-Sept 14	MGE	SEPT	Aug 1-Aug 31
South Dakota	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Utah	MGE	SEPT	Aug 15-Sept 14	MGE	SEPT	Aug 1-Aug 31
Vermont	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Washington	MGE	SEPT	Aug 15-Sept 14	MGE	SEPT	Aug 1-Aug 31
Wisconsin	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
Wyoming	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31

DURUM	Projected			Harvest		
	Exchange	Month	Date Range	Exchange	Month	Date Range
Arizona	MGE	JULY	Sept 15-Oct 14	MGE	JULY	June 1-June 30
California	MGE	JULY	Sept 15-Oct 14	MGE	JULY	June 1-June 30
Montana	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
North Dakota	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31
South Dakota	MGE	SEPT	Feb 1-Feb 28	MGE	SEPT	Aug 1-Aug 31

V. Data Requirements

- Producer Data
 - FSA – base acres, CC yields and planted acres
 - RMA/Crop insurance agent – rate (actual) yields, coverage type, level and area
- Sample Input Sheet(s)
- We Still Don't Have All the Data We Need

FARM 1234

Prepared: 6/10/14 1:55 PM

Crop Year: 2014

Page: 1 of 1

Texas

U.S. Department of Agriculture

Dallam

Farm Service Agency

Report ID: FSA-156EZ

Abbreviated 156 Farm Record

DISCLAIMER: This is data extracted from the web farm database. Because of potential messaging failures in MIDAS, this data is not guaranteed to be an accurate and complete representation of data contained in the MIDAS system, which is the system of record for Farm Records.

Operator Name**Farm Identifier****Recon Number**

Joe Farmer

Farms Associated with Operator:

4567, 6789

CRP Contract Number(s): None

Farmland	Cropland	DCP Cropland	WBP	WRP/EWP	CRP Cropland	GRP	Farm Status	Number of Tracts
155.42	155.42	155.42	0.0	0.0	0.0	0.0	Active	1
State Conservation	Other Conservation	Effective DCP Cropland	Double Cropped	MPL/FWP			FAV/WR History	
0.0	0.0	155.42	0.0	0.0			N	



Crop	Base Acreage	Direct Yield	CC Yield	CCC-505 CRP Reduction
WHEAT	64.2	54	60	0.0
CORN	84.0	103	176	0.0
GRAIN SORGHUM	1.2	103	22	0.0
Total Base Acres:	149.4			

FSA Crop History Summary

Reported Commodity Crop History Summary

Producer A

Ward, North Dakota		Farm Number 11		Operator Producer B			
2014 Commodity	2014 Base Acres	2014 CC Yield		2014 Commodity	2014 Base Acres	2014 CC Yield	
Barley	27.00	43.00		Canola	62.50	1073.00	
Wheat	283.50	30.00					
History							
Crop		2008	2009	2010	2011	2012	
Canola	Planted	38.10	0.00	0.00	0.00	32.60	
Canola	Prevented	0.00	0.00	0.00	0.00	0.00	
Canola	Double	0.00	0.00	0.00	0.00	0.00	
Canola	Subsequent	0.00	0.00	0.00	0.00	0.00	
Com	Planted					133.90	
Com	Prevented					9.00	
Com	Double					0.00	
Com	Subsequent					0.00	
Peas	Planted	0.00	38.12	0.00	0.00	0.00	
Peas	Prevented	0.00	0.00	0.00	0.00	0.00	
Peas	Double	0.00	0.00	0.00	0.00	0.00	
Peas	Subsequent	0.00	0.00	0.00	0.00	0.00	
Soybeans	Planted	0.00	131.54	0.00	0.00	129.50	
Soybeans	Prevented	0.00	0.00	0.00	0.00	0.00	
Soybeans	Double	0.00	0.00	0.00	0.00	0.00	
Soybeans	Subsequent	0.00	0.00	0.00	0.00	0.00	
Wheat	Planted	131.50	0.00	169.66	125.20	106.10	
Wheat	Prevented	0.00	0.00	0.00	44.40	0.00	
Wheat	Double	0.00	0.00	0.00	0.00	0.00	
Wheat	Subsequent	0.00	0.00	0.00	0.00	0.00	

Approved APH Production & Yield Report

Unit	Line # 48	Ref #	2013 - TX - Dallam - Grain Sorghum Insurance Plan: YP - Coverage Level: 60%	
FSA Farm/Tract/Field:		1234	Block:	
Farm Name:			Type: No Type Specified (997)	
Practice: Non-Irrigated (903)				
Other Entities:				
Legals/Other Land Identifier:				
New Producer ^{^^} ? <input type="checkbox"/> Added Land P/T/V? <input type="checkbox"/> Add Yield Adjustment option? <input type="checkbox"/>				
Year	Production	Acres	Yield	APH
1996	5,830.0	73.3	80 A	80
1997	6,209.0	71.8	86 A	86
1998	1,885.7	39.6	48 A	48
1999	2,486.8	29.8	83 A	83
2000	2,517.1	29.9	84 A	84
2007	5,532.9	66.1	84 A	84
2008	4,901.4	65.4	75 A	75
2009	2,375.9	65.0	37 A	37
2010	2,309.0	37.2	62 A	62
2012	4,669.8	30.0	156 A	156
RMA T Yield: 56		Total (of Yield History): 795		
Prior APH Yield: 0		Average Yield: 80		
Record		1.000		
Processor N		Organic: <input type="checkbox"/>		
		Transitional: <input type="checkbox"/>		
Final Plant Date: 3/31/2013		Acreage Reporting Date: Not Applicable		

We want actuals or the Rate
Yield

AFPC Crop Decision Aids Data Collection Form and Instructions

Use the form on the last page of this document to collect the data needed to enter for the AFPC Decision Aid. Use one data form for each farm unit. You should create a farm unit in the Your Farm Units area of the web site for each unique FSA#-crop-practice combination in your operation.

Across all AFPC decision aid modules, consistent units of measurement shown in the table below are used for prices and yields for each crop. Data must be entered in the units listed below to maintain consistency with the national and county-level data that will be used for your analysis. Using different units will invalidate the results of the analysis.

Crop	Price Units	Yield Units
Corn	\$/bushel	Bushels/acre
Cotton	\$/pound	Pounds/acre
Grain Sorghum	\$/bushel	Bushels/acre
Rice	\$/hundredweight	Hundredweight/acre
Soybeans	\$/bushel	Bushels/acre
Wheat	\$/bushel	Bushels/acre

NAAFP Crop/Unit Information Sheet

Crop Information Worksheet for Each Farm Unit in the Decision Aid

FSA Number									
Crop Name									
CC Payment Yield*									
Base Acres*									
APH Yield									
Harvest Time Basis									
Current Insurance									
Y, RP, RP-HPE**									
Coverage Level									
Enterprise/Optional									
Planted Acres in									
2014									
2015									
2016									
2017									
2018									
Historical Data***	Yield	Plt Acre+	PP Acre+	Yield	Plt Acre+	PP Acre+	Yield	Plt Acre+	PP Acre+
2003									
2004									
2005									
2006									
2007									
2008									
2009									
2010									
2011									
2012									
2013									

*CC Yield and Base Acres in the FSA form "Reported Commodity Crop History Summary" mailed to producers in August.

**Y – yield insurance, RP – revenue insurance, RP-HPE – revenue protection with harvest price exclusion.

***Yield history available on crop insurance forms or farm records. Yields for 2008-2012 are used to update payment yields. Yields for 2004-2007 are used to appropriately incorporate yield risk in program participation and insurance decisions.

+~~Plt~~ Acre – planted acres, PP Acre – prevented planted acres

VI. Modeling/Distributional Assumptions

- Most of the model is simple algebra with linear regression equations
- Log price changes and yield deviations are jointly normal (i.e., assumed to be normal distributions)
- Crop insurance forecasts SCO premiums if actuarial data master tables are not available – otherwise uses tables from actuarial data master to calculate insurance premiums

VII. Price Forecasts

- 21 Covered Commodities
- USDA
 - Midsession review from this summer for 2013-2018
 - 2013 and 2014 updated monthly from WASDE
 - Not sure about coverage
- FAPRI
 - Special analysis done monthly after WASDE published
 - I have files for most crops from January and all 21 starting in July

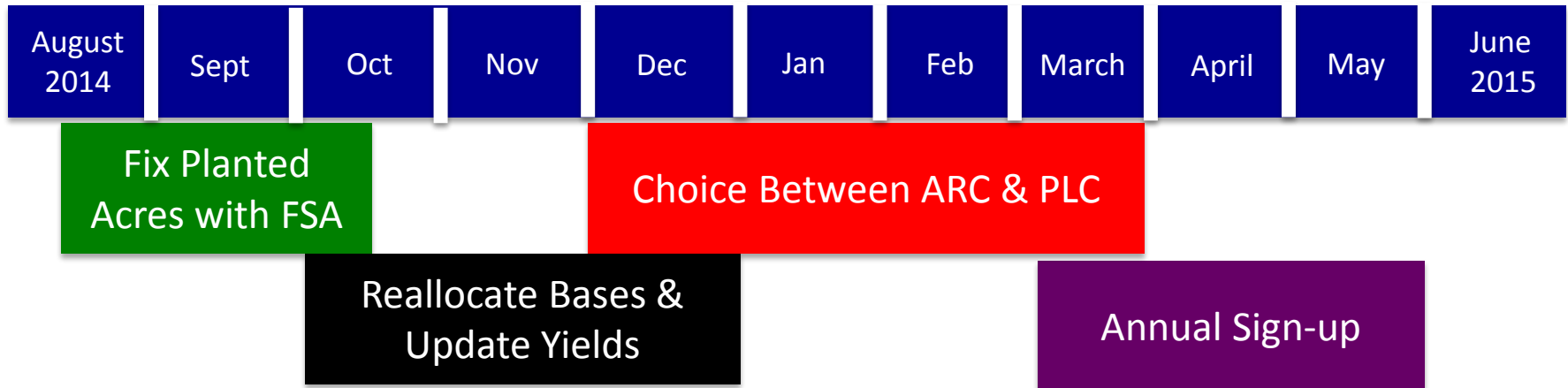
VIII. Browser Compatibility

- Try to steer everyone to:
 - IE 9 or greater
 - Firefox
 - Chrome
 - Safari
- FSA nationally uses IE 8 which is no longer supported by Microsoft

IX. Timing of Decision Aid Rollout

- Potential Signup Timeline
 - I guess I know more than I can say but... (next)
- For our Decision Aid
 - Have to roll it out September 25th
 - Will get all actuarial data master info for spring planted crops on October 6th
 - Will make Insurance component available shortly after that
 - <http://decisionaid.afpc.tamu.edu/tools/insurance>
 - Later this year will work on Generic Base Allocation Tool

My Guess at the Sign-up Timeline



X. Using the Decision Aid

- Setting up an Account for You and Producers
- Walk Through Decision Aid at Lunch
- You will Enter a Farm to Gain Experience

Inputting the Data

The simplest case

FSA 156EZ

Production and Yield
Reporting Form

Wheat



Dryland Wheat

Corn



Dryland Corn

Grain Sorghum



Dryland Grain Sorghum

When You Finish Inputting Your Data

FSA #	Name	Crop	Practice	APH	Yields
1111	Smith Place	Wheat	Non-Irrigated	30 bu / acre	10
1111	Smith Place	Corn	Non-Irrigated	95 bu/acre	10
1111	Smith Place	Grain Sorghum	Non-Irrigated	70 bu/acre	10

Inputting the Data

A common case

FSA 156EZ

Production and Yield
Reporting Form

Wheat



Dryland Wheat

Corn



Dryland Corn Unit 1

Grain Sorghum



Dryland Corn Unit 2



Dryland Grain Sorghum

In many cases data for one specific FSA farm # will not directly relate to 1 specific crop insurance unit

When You Finish Inputting Your Data

FSA #	Name	Crop	Practice	APH	Yields
1111	Smith Place	Wheat	Non-Irrigated	30 bu / acre	10
1111	Smith Place West	Corn	Non-Irrigated	95 bu/acre	10
1111	Smith Place East	Corn	Non-Irrigated	100 bu/acre	10
1111	Smith Place	Grain Sorghum	Non-Irrigated	70 bu/acre	10

In this particular example, you would split the base acres across the two different corn units on the same FSA farm #. We suggest allocating based on planted acres for each unit.

Inputting the Data

A common case

FSA 156EZ

Production and Yield
Reporting Form

Wheat



Dryland Wheat

Grain Sorghum



Dryland Grain Sorghum

Oats



?

In many cases data for one specific FSA farm # will not directly relate to 1 specific crop insurance unit

When You Finish Inputting Your Data

FSA #	Name	Crop	Practice	APH	Yields
1111	Smith Place	Wheat	Non-Irrigated	30 bu / acre	10
1111	Smith Place	Grain Sorghum	Non-Irrigated	65 bu/acre	10
1111	Smith Place	Oats	Non-Irrigated		

Inputting the Data

More common case

FSA 156EZ

Production and Yield
Reporting Form

Wheat

Corn

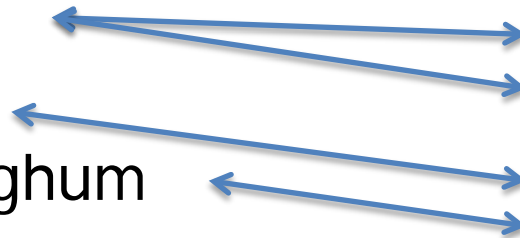
Grain Sorghum

Dryland Wheat

Irrigated Wheat

Dryland Corn

Dryland Grain Sorghum



When You Finish Inputting Your Data

FSA #	Name	Crop	Practice	APH	Yields
1111	Smith Place	Wheat	Non-Irrigated	30 bu / acre	10
1111	Smith Place	Wheat	Irrigated	65 bu/acre	10
1111	Smith Place	Corn	Non-Irrigated	95 bu/acre	10
1111	Smith Place	Grain Sorghum	Non-Irrigated	70 bu/acre	10

In this particular example, you would split the wheat base acres across the two different practices (irrigated and non-irrigated) on the same FSA farm #. We suggest allocating based on planted acres for each practice.

Inputting the Data

Less common case

FSA 156EZ

Production and Yield
Reporting Form

Wheat



Dryland Wheat

Corn



Dryland Corn

Grain Sorghum



Dryland Grain Sorghum

?



Dryland Canola

When You Finish Inputting Your Data

FSA #	Name	Crop	Practice	APH	Yields
1111	Smith Place	Wheat	Non-Irrigated	30 bu / acre	10
1111	Smith Place	Corn	Non-Irrigated	95 bu/acre	10
1111	Smith Place	Grain Sorghum	Non-Irrigated	70 bu/acre	10
1111	Smith Place	Canola	Non-Irrigated	20 cwt/acre	10

Inputting the Data

Less common case

FSA 156EZ

Production and Yield
Reporting Form

Farm # 1111

Wheat

Corn

Dryland Wheat

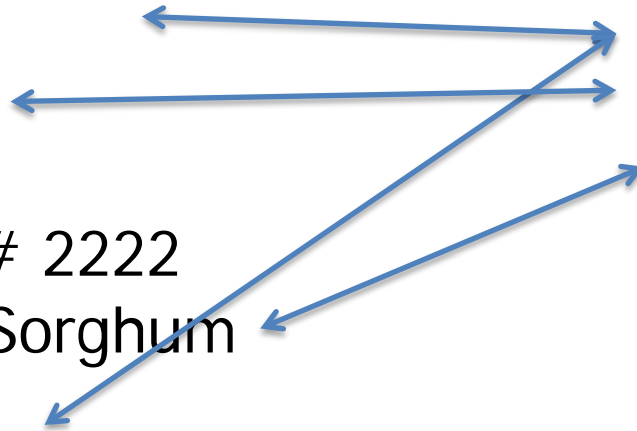
Irrigated Corn

Dryland Grain Sorghum

Farm # 2222

Grain Sorghum

Wheat



When You Finish Inputting Your Data

FSA #	Name	Crop	Practice	APH	Yields
1111	Smith Place	Wheat	Non-Irrigated	30 bu / acre	10
1111	Smith Place	Corn	Irrigated	135 bu/acre	10
2222	Jones Place	Wheat	Non-Irrigated	30 bu/acre	10
2222	Jones Place	Grain Sorghum	Non-Irrigated	70 bu/acre	10

In this particular example, we would put the actual yield information obtained from your Crop insurance agent in for wheat in both farm numbers

Some Special Cases

- Difference Between Double Crops and Subsequent Crops (J code)
- Implications for Yield Updating and Base Reallocation
 - Double crop put in both as normal
 - Subsequent crop the producer gets to choose

XI. Planned Enhancements

- Add Graphics to Output to Augment Result Tables
- Add Print Buttons at the Bottom of Each Page
- Add FSA Forms to be Printed and Turned into FSA
- Add No Insurance and CAT
- Trying to Figure out How to Get People to Understand How You Can Get PLC Payment with Prices Above the Reference Price (Risk)