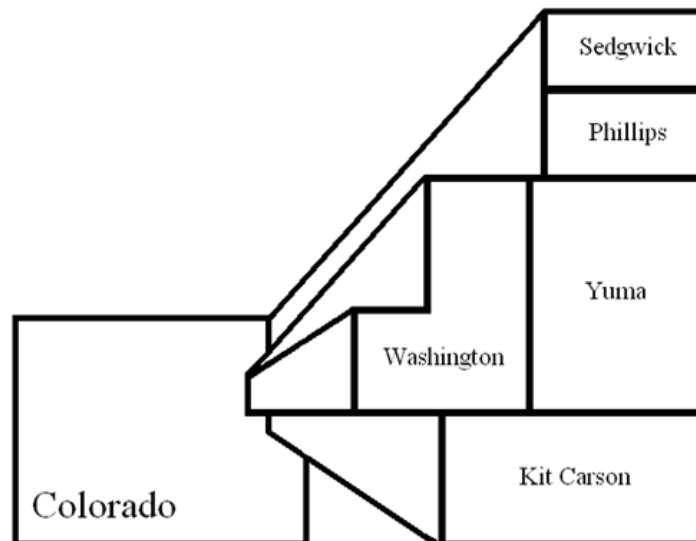


Golden Plains Area
AGRICULTURAL HANDBOOK



2016 | Volume XIII

Colorado State University Extension

GOLDEN PLAINS AREA

AREA OFFICES

Kit Carson County

817 15th Street
Burlington, Colorado 80807
Phone: (719) 346-5571
coopext_kit_carson@mail.colostate.edu

Phillips County

P.O. Box 328
22505 Hwy 385
Holyoke, Colorado 80734
Phone: (970) 854-3616
coopext_phillips@mail.colostate.edu

Sedgwick County

315 Cedar
County Courthouse
Julesburg, CO 80737
Phone: (970) 474-3479
coopext_sedgwick@mail.colostate.edu

Washington County

181 Birch Avenue
Akron, Colorado 80720
Phone: (970) 345-2287
coopext_washington@mail.colostate.edu

Yuma County

310 Ash Avenue; Suite B
Wray, Colorado 80758
Phone: (970) 332-4151
coopext_yuma@mail.colostate.edu

REGIONAL SPECIALISTS

Peaks & Plains Regional Office

830 N. Main St., Suite 200
Pueblo, CO 81003
Phone: (719) 545-1845

Bill Nobles
Regional Director
william.nobles@colostate.edu

U.S. Central Great Plains Research Station

Central Great Plains Research Station
40335 County Road GG
Akron, CO 80720

Joel Schneekloth
Regional Water Resource Specialist
Phone: (970) 345-0508
joel.schneekloth@colostate.edu

Northeast Regional Engagement Center

304 Main Street
Sterling, CO 80751

Donald Schoderbek
Range Management Specialist
Phone: (970) 522-7207
donald.schoderdek@colostate.edu

Brent Young

Agriculture and Business Management Economist
Phone: (970) 522-7207
brent.young@colostate.edu

University Square

4040 Campus Delivery
Fort Collins, CO 80523

Assefa Gebre-Amlak,
Crop Protection & Pest Management
(970) 491-2666
assefa.gebre-amlak@colostate.edu

Golden Plains Area

AGRICULTURAL HANDBOOK

2016 | Volume XIII

EDITORS

Assefa Gebre-Amlak
Northern Region Pest Management Specialist

Dennis A. Kaan
Golden Plains Area Director/Community Development Agent

ACKNOWLEDGMENT

Golden Plains Area Extension programs and information are the result of a cooperative effort between Colorado State University and Kit Carson, Phillips, Sedgwick, Washington and Yuma Counties. We wish to thank the following people for their on-going advice, support and effort in helping put this research-based information to work.

AG ADVISORY COMMITTEE

Dave Anderson.....	<i>Haxtun</i>	Troy Marshall.....	<i>Burlington</i>
Peggy Brown.....	<i>Yuma</i>	Rob McClary.....	<i>Sedgwick</i>
Kelly Burr.....	<i>Seibert</i>	Fred Raisch.....	<i>Yuma</i>
David Carlson.....	<i>Julesburg</i>	Brad Rock.....	<i>Wray</i>
Rollie Deering.....	<i>Yuma</i>	Tim Stahlecker.....	<i>Stratton</i>
Roger Koberstein.....	<i>Holyoke</i>	John Wright.....	<i>Akron</i>
Gary Lancaster.....	<i>Julesburg</i>		

BOARDS OF COUNTY COMMISSIONERS

Kit Carson.....	Cory Wall	Washington.....	Lea Ann Laybourn
	Dave Hornung		Terry Hart
	Gary Koop		David Foy
Phillips.....	K. Joe Kinnie	Yuma.....	Trent Bushner
	Harlan Stern		Robin Wiley
	Don Lock		Dean Wingfield
Sedgwick.....	Mark Turner		
	Don Schneider		
	Howard McCormick		



Agriculture Handbook | One Volume Annual Publication | 2016, Volume XIII

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Colorado State University, Fort Collins, Colorado. Extension programs are available to all without discrimination. No endorsement of products named is intended nor is criticism implied of products not mentioned.

TABLE OF CONTENTS

HORTICULTURE	Plant Select Program in the Golden Plains Area	1
	High and Dry Garden.....	4
	Vegetable Varieties Recommended for the Plains	6
	Earth Kind Roses Demonstration Garden.....	6
	Recommended Trees for the Golden Plains Area	7
	Colorado State University Annual Trials 2015	9
	Native plant Garden within Community Garden in Burlington.....	11
	Colorado State University 2016 Trials for Top Performing Perennials.....	12
	Plant Select 2016 Top Performers.....	13
ENTOMOLOGY	2015 Grasshopper Survey.....	15
	The Relationship between Planting Dates and Some Sunflower Head-Infesting Insects Infestation and Damage in the Eastern Plains of Colorado	20
AGRONOMY	Effects of Additional Inputs on Sunflower Production	28
	Cover Crop Trial Results	30
	Options for Hailed Corn	34
CROP PERFORMANCE TRIALS	Colorado State University Crops Testing.....	36
	Irrigated Corn Hybrid Performance Trial at Yuma.....	37
	Irrigated Corn Hybrid Performance Trial at Holyoke.....	38
	Irrigated Corn Hybrid Performance Trial at Burlington.....	39
	Dailey Dryland Corn Drought and Non-Drought Tolerant Hybrid Performance a Three Plan Densities	40
	Akron Dryland Corn Drought and Non-Drought Tolerant Hybrid Performance a Three Plan Densities	41
	Dryland Grain Sorghum Hybrid Performance Trial at Burlington	42
	Dryland Oil Sunflower Hybrid Performance Trial at Genoa	43
	Limited Irrigation Oil Sunflower Hybrid Performance Trial at Burlington....	44
	Limited Irrigation Confection Sunflower Hybrid Performance Trial at Burlington.....	45
	Dryland Oil Sunflower Hybrid Performance Trial at Julesburg.....	46
	Dryland Confection Sunflower Hybrid Performance Trial at Julesburg	47
	Summary of 2016 Dryland Wheat Variety Performance Results	48
	Summary of 2-Year (2015-2016) Dryland Wheat Variety Performance Results	49
	Summary of 3-Year (2014-2016) Dryland Wheat Variety Performance Results	50
	Summary of 2-Year (2015-2016) Irrigated Wheat Variety Performance Results at Haxtun	51
	Collaborative On-Farm Test (COFT) Wheat Variety Performance	

	Results.....	52
CROP ECONOMICS	GPA Basis Data.....	53
	Corn Basis	
	Akron M&M Elevator.....	54
	Flagler.....	55
	Holyoke.....	56
	Julesburg.....	57
	Wray.....	58
	Yuma.....	59
	All Sites Average.....	60
	Wheat Basis	
	Akron M&M Elevator.....	61
	Flagler.....	62
	Holyoke.....	63
	Julesburg.....	64
	Wray.....	65
	Yuma.....	66
	All Sites Average.....	67
	Crop Enterprise Cost Estimates for 2016 in Northeastern Colorado.....	68
	Irrigated Crops in Northeastern Colorado	
	Alfalfa.....	71
	Pinto Beans.....	72
	Corn.....	73
	Sugar Beets.....	74
	Oil Sunflowers.....	75
	Winter Wheat.....	76
	Soybeans.....	77
	Irrigated Crops in the South Platte Valley	
	Corn.....	78
	Sugar Beets.....	79
	Winter Wheat.....	80
	Dryland Crops in Northeastern Colorado	
	Winter Wheat, Conventional-till.....	81
	Winter Wheat, Reduced-till.....	82
	Corn, Reduced-till.....	83
	Proso Millet, Reduced-till.....	84
	Oil Sunflowers, Reduced-till.....	85
	Cost of Production Trends for Irrigated and Dryland Crops in the Golden Plains Area, 2015-2011.....	86
	Irrigated Crops	
	Alfalfa.....	88
	Pinto Beans.....	89

	Cost and Price Graphs.....	90
	Corn	91
	Sugar Beets	92
	Cost and Price Graphs.....	93
	Wheat	94
	Dryland Crops	
	Wheat	95
	Cost and Price Graphs.....	96
	Corn	97
	Proso Millet.....	98
	Cost and Price Graphs.....	99
	Oil Sunflowers.....	100
	Cost and Price Graphs.....	101
LIVESTOCK ECONOMICS	Livestock Enterprise Budget Principles	102
	Beef Cattle	
	Cow Calf	104
	Backgrounding.....	105
	Stocker.....	106
	Finishing	107
	Dairy Cattle	
	Dairy Cow – Raised Replacements	108
	Dairy Replacement Heifer.....	109
	Swine	
	Farrow to Finish	110
	Farrow to Weaned	111
	Wean to Finish	112
	Nursery	113
	Finishing	114
LIVESTOCK PRODUCTION	Livestock Terms, Tables and Figures	115
	Livestock Nutrition Terms	115
	Comparing Prices of Livestock Feeds	116
	Animal Unit Equivalentents for Grazing	117
	Estimated Livestock Water Requirements.....	118
	Body Condition Score Description	119
	Temperature Humidity Index for Livestock	120
	Livestock Gestation Calendar	121