

Contents

Introduction	1	5 – Major Insect Pests of Grain Sorghum in Arkansas and Their Management	25
1 – Growth and Development	3	Aphids Including the Greenbug, Corn	
Growth Stages	4	Leaf and Yellow Sugarcane Aphid	26
• Growth Stage I	4	Chinch Bug	26
• Growth Stage II	4	Cutworms Including the Black	
• Growth Stage III	4	Cutworm	27
Growing Degree Days	5	White Grub	28
• Growing Degree Unit Calculation	5	Wireworm	29
References	5	Sorghum Midge	29
2 – Cultural Practices	7	Corn Earworm	30
Site Selection	7	Fall Armyworm	31
Planting Date	7	Sorghum Webworm	32
Planting Depth	7	Stink Bugs	32
Seeding Rates	7	References	33
Row Spacing	8	Acknowledgments	33
Hybrid Selection	8	Photo Descriptions	34
3 – Drainage and Irrigation	11	6 – Common and Important Diseases of Grain Sorghum	37
Drainage	11	Introduction	37
• Surface Drainage	11	Anthracnose	37
• Internal Drainage	12	• Resistance to Anthracnose	38
Irrigation	13	Bacterial Diseases	41
• Yield	13	• Bacterial Leaf Spot	41
• Water Needs	13	• Bacterial Leaf Streak	41
• Irrigation Scheduling	14	Other Important Fungal Diseases	41
• Irrigation Termination	16	• Leaf Blights	41
Irrigation Methods	16	• Charcoal Rot	41
• Flood (Levee) Irrigation	16	• Head Blight and Head Molds	42
• Furrow Irrigation	17	• Target spot	42
• Border Irrigation	18	• Zonate Leaf Spot	42
• Center Pivot Irrigation	19	An Uncommon Fungal Disease	43
Arkansas Situation	20	• Sorghum Ergot	43
References	20	Summary	43
4 – Fertilization and Liming	21	Nematodes	43
Soil pH	21	Management Recommendations	43
• Nutrient Availability	21	• Resistance	44
Lime Recommendations	22	• Planting Dates	44
Fertilizer Recommendations	23	• Crop Rotation	44
• Nitrogen Rates and Sources	23	• Seed Bed Preparation	44
• Preplant Fertilizer	24	Photographs	45
Plant Analysis	24		

7 – Weed Control in Grain Sorghum	47	11 – Grain Sorghum for Forage	63
		Forage and Grain Sorghums	63
8 – Harvesting Grain Sorghum	51	Agronomic Characteristics	66
Moisture	51	Forage Nutritive Value	66
Gathering	52	Feeding Comparisons	66
Threshing	53	Prussic Acid and Nitrates	66
Separation	53	References	68
Field Loss	53		
Highlights	54	12 – Identify Hazards and	
		Prevent Accidents	69
9 – On-Farm Storage and Drying	55	Have a Plan to Reduce Hazards	69
Fan Types	56	Field	69
Drying Costs	59	Traffic and Road Transport	70
Long-Term Storage Management	59	General Precautions	71
Safety	59	Irrigation	71
Additional Resources	59	Grain Drying	72
		OSHA	73
10 – Estimating Production Costs		Summary	74
for Grain Sorghum in Arkansas	61	Contacts that May Prove Helpful	74