



Planting Guide for Row Crops in Georgia

Revised by Nicholas J. Shay, Extension Grains Agronomist

This planting guide will help producers establish grasses and legumes commonly grown in Georgia. Information given for particular species should not be taken as a recommendation to grow that species. Not all of the plant species grown in Georgia are recommended by the University of Georgia.

Start with high quality seed. Certified seed is available for most recommended crops. Test your soil to determine nutrient needs. Contact your local county Extension office for information on soil sampling. Fertilize and lime according to soil test results.

Plant seed at the proper depth in a good seed bed when soil temperatures and moisture are best for that species. Use the correct seed per acre as indicated. Manage for high yields by maintaining soil fertility and controlling weeds, insects and diseases. Harvest at the appropriate time with properly adjusted equipment. Protect seed quality through proper handling and storage.

WARM SEASON

Crop	lb seed/ bushel	Approx. seeds/oz	Seeding rate	Planting date ¹	Days to maturity	Certified seed quality			Remarks
						Min. germ %	Min. purity %	Max. weed seed	
Corn, field	56	80–140	*See table below	LV: Apr. 1–May 10 P: Mar. 15–Apr. 20 C: Mar. 1–Apr. 28	95–130	90	99	None	Use higher plant populations for irrigated fields. See the current UGA production guide.
Cotton	46	225–350	For 36-in.* row width: 3–4 seed/row foot (dryland) 4–6 seed/row foot (irrigated)	S: Apr. 1–May 25	140–160	80	98	0.02%	Irrigated fields should be planted after May 1 for best production.
Grain sorghum	56	750–1250	**See table below	LV: May 15–July 1 P: May 1–July 1 C: Apr. 15–Jul. 15	100–120	80	98	0.10%	Plant when soil temperature is above 60–65 °F. Increase seeding rate for irrigated fields.
Peanuts • Virginia • Runner • Spanish	20-30	Seeds/lb 25–30 45–50 55–60	For 36-in. rows: 5–6 seed/row foot 6–8 seed/row foot 6–8 seed/row foot	C: Apr. 15–June 10; Preferred May 10–25	135–150	75	95	None	Always use certified seed. Plant when soil temperature is above 68°F and soil has adequate moisture to germinate seed.
Soybeans	60	135–250	Row width Seed/ft ² 36 in. 10–12 30 in. 9–11 12 in. 5–6 6 in. 3–4	LV: May 10–June 15 P: Apr. 1–June 30 C: May 1–July 15	Group IV: 135 Group V: 145 Group VI: 155 Group VII: 160	80	98	10/lb	Use certified seed for best results. Consult the current UGA production guide.
Sunflowers • Confectionery • Oil	24 32	300–500 600–900	Row width Seed/ft ³ 36 in. 11–12 30 in. 9–10 24 in. 8–9	LV: Apr. 1–June 15 P: Apr. 1–May 1 C: Mar. 15–Jul. 15	90–110	85	97	0.1%	Very little market in Georgia; often susceptible to Alternaria leaf blight.
Tobacco • Beds • Field		325,000	0.2 oz/100 sq. yards 7000 plants/acre	S: Dec. 20–Jan. 10	Varies	80	98	None	Evenly distribute seed in beds and keep moist during germ the first 4 weeks.

¹ LV-Limestone Valley, P-Piedmont, C-Coastal Plain, UC-Upper Coastal Plain, LC-Lower Coastal Plain, S-Statewide

² Assumes 80% emergence; ³ Assumes 90% emergence

COOL SEASON (Grain only)

Crop	lb seed/ bushel (bu)	Approx. seeds/oz	Seeding rate	Planting date ¹	Approximate harvest dates ⁴	Certified seed quality			Remarks
						Min. germ. %	Min. purity %	Max. weed seed	
Barley	48	800–900	75–100 lb/acre	LV: Oct. 10–Nov. 1 P: Oct. 25–Nov. 15 C: Nov. 7–Dec. 1	Mid-May to early June	85	98	10/lb	Very sensitive to acid soils. Control loose smut with proper seed treatment. Use certified seed.
Lupine: • White • Blue	55 60	65–100 180–200	100 lb/acre 80–90 lb/acre	LV: Sept. 15 P: Oct. 15 C: Nov. 1	Late May to mid-June	80	98	0.3%	Usually used for hay, grazing or green ma- nure. Use an inoculant.
Oats	32	1000– 1425	60–75 lb/acre	LV: Sept. 25–Oct. 15 P: Oct. 7–Nov. 1 C: Nov. 7–Dec. 1	Late May to late June	85	98	10/lb	Control loose smut with proper seed treatment. Use certified seed.
Winter Rape or Canola	50	6500– 8500	4–7 lb/acre	LV: Oct. 1–15 P: Oct. 1–Nov. 1 C: Oct. 15–Nov. 15	May to late June	85	99	15/lb	Harvest as early as possible to reduce shattering. Watch for aphid infestation and apply control methods to avoid damage.
Rye	56	1,135	60–90 lb/acre	LV: Oct. 1–20 P: Oct. 7–Nov. 15 C: Nov. 7–Dec. 1	Late May to late June	80	98	10/lb	Use certified seed.
Triticale	48	700–950	80–90 lb/acre	C: Nov. 7–Dec. 15	Mid-May to early June	85	98	10/lb	Varieties differ in feed- ing efficiency. Contact county agent for info.
Wheat	60	625 to 935	60–90 lb/acre, or 120–150 lb/ acre ⁵ . For best results, plant 22–25 seeds per row foot in 7.5-in. drill widths.	LV: Oct. 10–Nov. 1 P: Oct. 25–Nov. 15 UC: Nov. 7–Dec. 1 LC: Nov. 15–Dec. 1	Late May to mid-June	85	98	10/lb	See the current produc- tion guide for more information. Use deep tillage for best yields. Do not plant seed more than 1.5–2 in. deep. Use certified seed.
¹ LV-Limestone Valley, P-Piedmont, C-Coastal Plain, UC-Upper Coastal Plain, LC-Lower Coastal Plain, S-Statewide									
⁴ Because of the growth habit of cool-season crops, approximate harvest dates are given rather than days to maturity.									
⁵ For intensive management									

These charts are to be used as a guide and do not replace the need to obtain additional information for good management practices. Consult current performance bulletins for variety yield data. Always use certified seed to ensure good germination, trueness to variety, and freedom from noxious weeds.

Helpful Tables and Formulas

Corn Planting Rates According to Row Widths

Final Pop Plants/A	Row spacing (in. between seed)				Seeds/A planted
	30	36	38	40	
	— inches between seed —				
16000	11.0	9.2	8.7	8.3	18800
18000	9.9	8.2	7.8	7.4	21200
20000	8.9	7.4	6.9	6.6	23500
22000	8.1	6.7	6.3	6.0	25900
24000	7.5	6.1	5.8	5.5	28200
26000	6.8	5.6	5.4	5.1	30600
28000	6.4	5.3	5.0	4.8	33000
30000	6.0	4.9	4.6	4.4	35300
* Corn planting rates assuming 85% emergence					

Grain Sorghum Planting Rates According To Row Widths

Final Pop Plants/A	Row spacing (in.)						Seed/A planted
	7	10	20	24	40	36	
	— inches between seed —						
34000	22.4	15.7	7.8	6.5	5.2	4.4	40000
42500	17.9	12.5	6.3	5.2	4.2	3.5	50000
51000	14.9	10.5	5.2	4.4	3.5	2.9	60000
59500	12.8	9.0	4.5	3.7	3.0	2.5	70000
68000	11.2	7.8	3.9	3.3	2.6	2.2	80000
76500	10.0	7.0	3.5	2.9	2.3	1.9	90000
85000	9.0	6.3	3.1	2.6	2.1	1.8	100000
106350	7.2	5.0	2.5	2.1	1.7	1.4	125000
** Grain sorghum planting rate assuming 85% emergence							

The following three formulas can help you determine seeding rates:

seed per row foot = number seed desired per acre x row width (ft) ÷ 43560

seed per acre = (43560 ÷ row width (ft)) x seed per row foot

pounds of seed needed = (seed per acre ÷ seeds per pound) x acres to be planted

Estimating Plant Populations

This table can be used for all crops in determining plant population or seed drop per acre. Simply follow these easy steps.

1. Determine average row width, in inches (left column).
2. Either determine average spacing between seeds (or plants) in inches (top line) OR determine average number of seeds (or plants)/50 ft. row length (bottom line).
3. Read seed drop or plants per acre from table below (intersection of line and column).
4. Add 000, as all counts are in thousands.

Plant Population Per Acre (thousands)

Row width (in.)	Spacing between seeds or plants (in.)										
	1	2	3	4	5	6	7	9	11	12	15
7	896	448	299	224	179	150	128	100	81	69	60
10	627	314	209	157	125	105	90	70	57	48	42
15	418	209	139	105	84	70	60	46	38	32	28
20	314	157	105	79	63	53	45	35	29	24	21
28	224	112	75	56	45	38	32	25	20	17	15
30	209	105	70	53	42	35	30	23	19	16	14
36	174	87	58	44	35	29	25	19	16	14	12
38	165	83	55	42	33	28	24	18	15	13	11
40	157	78	52	39	31	26	22	17	14	12	10
Average # of plants or seeds per 50 ft	600	300	200	150	120	100	86	67	55	46	40

Count the number of plants in a length of row equal to 1/1000 of an acre. Make several counts in several areas of the field and figure the average of these samples. Multiply the average number by 1000.

Row width (in.)	Row length equal to 1/1000 acre
7	74 ft 8 in.
15	34 ft 10 in.
24	21 ft 10 in.
30	17 ft 5 in.
32	16 ft 4 in.
36	14 ft 6 in.
38	13 ft 9 in.
40	13 ft 1 in.

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