

# FloRun™ ‘331’ Peanut Variety<sup>1</sup>

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FloRun™ ‘331’ peanut variety was developed by the University of Florida Institute of Food and Agricultural Sciences, North Florida Research and Education Center near Marianna, Florida. It was released in 2016 because it combines high yield potential with excellent disease tolerance. FloRun™ ‘331’ has a typical runner growth habit with a semi-prominent central stem and medium-green foliage. It has medium runner seed size with high oleic oil chemistry.

Under irrigated conditions in Florida, it reaches optimum maturity about 140 days after planting or around 2500 adjusted growing degree days. As described below, FloRun™ ‘331’ has demonstrated high yield potential under both irrigated and non-irrigated conditions. In four years of testing in Florida, the irrigated yield of FloRun™ ‘331’ was similar to that of Georgia-06G, TUFRunner™ ‘297’, and Georgia-12Y (Table 1). However, in non-irrigated tests over four years, its yield was about 400 pounds per acre higher than these control cultivars (Table 2). These results demonstrate the great yield potential of FloRun™ ‘331’ in Florida. Results are also available for its performance in 2017 in Georgia (Mailhot et al. 2018) and Mississippi (Burgess et al. 2018). In Georgia, pod yield of FloRun™ ‘331’ ranked within the top nine entries (9, 4, and 3 out of 22) in three irrigated tests. In non-irrigated tests in Georgia, it ranked twelfth in Tifton, GA, fourth in Plains, GA, and first in Midville, GA. In Mississippi, FloRun™ ‘331’ ranked second in pod yield across three locations in 2017.

The seed size of FloRun™ ‘331’ is smaller than that of Georgia-06G. The sound mature kernels (SMK) of FloRun™

‘331’ contained 660 seeds per pound, whereas the SMK of Georgia-06G had 590 seeds per pound ( $P > F < 0.001$ ). Since peanut seed are sold by the pound, not by seed count, this will mean that the seed cost of FloRun™ ‘331’ is lower than Georgia-06G and other large-seeded cultivars when planting the same seeding density.

FloRun™ ‘331’ has demonstrated very good resistance/tolerance to leaf spot and white mold. Table 3 shows the performance of FloRun™ ‘331’ in white mold tests, with yields of over 4,000 pounds per acre under severe white mold pressure and over 6,000 pounds per acre with minimal white mold pressure. Likewise, FloRun™ ‘331’ has performed well in the presence of late leaf spot. Table 4 shows the performance of FloRun™ ‘331’ under three leaf spot spray programs. Even when it was not sprayed for the entire season, it yielded over 3,000 pounds per acre. FloRun™ ‘331’ has moderate resistance to tomato spotted wilt as indicated in the 2018 Version of the Peanut Disease Risk Index (Kemerait et al. 2019). In that publication, FloRun™ ‘331’ has 15 points for TSWV compared to 10 points for Georgia-06G and 20 points for Georgia-09B.

In summary, FloRun™ ‘331’ has demonstrated an outstanding combination of yield potential, grade, and disease tolerance, all of which makes it well adapted to the southeastern United States peanut production regions. In addition to these important characteristics, it has high oleic oil chemistry, which provides extended shelf life of roasted peanuts and peanut products and may command a premium price at the buying point.

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Table 1. Performance of runner market-type peanut varieties in two to three irrigated locations in Florida over the four-year period 2014–2017 under optimum disease control conditions including a full-season fungicide program. Entries are sorted by the four-year average yield.

Name	YIELD (lbs./acre)				TSMK* (%)			
	2017	2-YR <sup>†</sup>	3-YR <sup>††</sup>	4-YR <sup>†††</sup>	2017	2-YR	3-YR	4-YR
FloRun™ '331' <sup>**</sup>	6132	6414	6733	6678	78.0	78.0	78.1	77.2
TUFRunner™ '297' <sup>**</sup>	6519	6528	6713	6669	79.8	79.0	78.6	78.3
Georgia-06G	6216	6358	6608	6652	80.3	79.9	80.1	79.5
TUFRunner™ '511' <sup>**</sup>	5977	6372	6505	6518	78.5	78.7	78.6	78.4
Georgia-12Y	6212	6426	6544	6503	76.5	76.6	76.7	76.2
Georgia-13M <sup>**</sup>	6037	6214	6326	6228	78.6	79.1	79.0	78.2
Georgia-09B <sup>**</sup>	5700	5754	5954	6047	80.8	79.9	80.0	80.1
Tifguard	5454	5485	5728	5728	79.9	79.6	79.5	78.9
LSD	390	283	232	207	1.1	0.6	0.8	0.7

\*TSMK=Total Sound Mature Kernels  
\*\*High oleic oil chemistry  
<sup>†</sup> 2 YR= average of 2016 and 2017  
<sup>††</sup> 3 YR= average of 2015, 2016 and 2017  
<sup>†††</sup> 4 YR= average of 2014, 2015, 2016 and 2017

Table 2. Performance of runner market-type peanut varieties in two to three non-irrigated locations in Florida over the four-year period 2014–2017 under optimum disease control conditions including a full-season fungicide program. Entries are sorted by the four-year average yield.

Name	YIELD (lbs./acre)			
	2017	2-YR <sup>†</sup>	3-YR <sup>††</sup>	4-YR <sup>†††</sup>
FloRun™ '331' <sup>**</sup>	5283	5159	5359	5496
Georgia-12Y	4724	4643	4858	5077
TUFRunner™ '297' <sup>**</sup>	4205	4537	4817	4963
Georgia-13M <sup>**</sup>	4262	4532	4617	4817
TUFRunner™ '511' <sup>**</sup>	4589	4507	4684	4807
Georgia-06G	4119	4480	4740	4750
Tifguard	3807	3966	4190	4322
Georgia-09B <sup>**</sup>	3826	4048	4236	4314
LSD	353	266	200	203

\*\*High oleic oil chemistry  
<sup>†</sup> 2 YR= average of 2016 and 2017  
<sup>††</sup> 3 YR= average of 2015, 2016 and 2017  
<sup>†††</sup> 4 YR= average of 2014, 2015, 2016 and 2017

Table 3. Performance of FloRun™ '331' under severe white mold disease pressure in Florida during the three-year period 2015–2017.

Name	Pod yield (lbs./A)			WMUG <sup>‡</sup> rating (%)		
	Inoc <sup>†</sup>	Not Inoc <sup>††</sup>	Mean	Inoc	Not Inoc	Mean
Georgia-12Y	4675	6930	5803	38	12	25
FloRun™ '331'	4501	6226	5363	46	12	29
TUFRunner™ '727'	3365	5603	4484	64	18	41
TUFRunner™ '297'	3274	5365	4319	73	23	48
TUFRunner™ '511'	3163	5197	4180	70	21	46
Tifguard	2705	4869	3787	83	27	55
Georgia-13M	2614	4649	3631	75	14	45
Georgia-06G	2496	5723	4109	87	18	52
Georgia-09B	2261	5310	3786	84	22	53
LSD	ns for interaction		645	18		13

<sup>†</sup> Inoc= plots inoculated with *Sclerotium rolfsii*  
<sup>††</sup> Not Inoc= plots not inoculated with *S. rolfsii*  
<sup>‡</sup> WMUG= rating of white mold disease severity after plants were inverted based on the percentage of disease plot area.

Table 4. Performance of FloRun™ '331' under three leaf spot spray programs in Florida during the three-year period 2016–2017. Planting was in early June to maximize leaf spot disease.

Name	Yield (lbs/acre)				Leaf spot rating (1–10) <sup>‡</sup>			
	No Spray <sup>†</sup>	4 Sprays	8 Sprays	Mean	No Spray	4 Sprays	8 Sprays	Mean
Georgia-12Y	3829	4597	4936	4454	8.1	6.5	5.0	6.5
FloRun™ '331'	3302	4550	4811	4221	8.9	7.5	6.8	7.7
TifNV-High O/L	3526	4380	4382	4096	8.5	7.6	5.0	7.0
Georgia-06G	2713	4017	4563	3764	8.9	7.4	6.5	7.6
TUFRunner™ '727'	2508	4140	4297	3648	8.4	7.9	7.1	7.8
Georgia-09B	2414	3871	4238	3507	8.4	7.3	6.5	7.4
Georgia-14N	2667	3521	3681	3290	8.3	7.9	6.6	7.6
Tifguard	2214	3421	4189	3274	8.3	7.4	6.3	7.3
TUFRunner™ '297'	1790	3669	4205	3221	10.0	8.6	6.0	8.2
TUFRunner™ '511'	2069	3380	3674	3041	10.0	9.3	7.8	9.0
Georgia-13M	1970	3411	3594	2992	8.5	7.9	6.8	7.7
LSD	ns for interaction			1294	ns for interaction			1.8

<sup>†</sup> No Spray= no fungicides applied for the season, 4 Sprays= four applications of fungicides to control leaf spots, and 8 Sprays= eight applications of fungicides to control leaf spots  
<sup>‡</sup> Leaf spot rating on the Florida Leaf Spot Scale (Chiteka et al. 1988).

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