



# 2020 PEANUT DISEASE MANAGEMENT REPORT

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Peanut disease management trials were conducted at the Oklahoma State University (OSU) Caddo Research Station near Fort Cobb in 2020. The Spanish peanut cultivar Ole was planted on May 6, 2020, in 36-inch rows. Cool temperatures slowed development in 2020. Even with the slow start peanut yields exceeding 5,000 pounds per acre. All peanut were treated with Prowl® H<sub>2</sub>O at 1 quart per acre + Valor® at 2 ounces per acre preemergence followed by Gramoxone® 8 fluid ounces per acre + Dual Magnum 1 pint per acre early postemergence followed by Select 16 fluid ounces per acre postemergence, along with hand weeding to maintain the plots weed free for the duration of the trial. Peanut were fertilized based on recommendations from OSU soil testing and were irrigated on an as needed basis.

Two trials were established to evaluate fungicides, primarily for control of leaf spot in Spanish peanut. In each trial, up to five applications were made, starting in mid-June. This coincided with the following application timings: POST1 (P1) – June 17, POST2 (P2) – July 2, POST3 (P3) – July 20, POST4 (P4) – Aug. 4, POST5 (P5) – Aug. 21. Peanut were dug in October and harvested on Oct. 21.

Trial PFCS20-09 was established to evaluate peanut disease response to Lucento in Spanish peanut (Ole). Fungicides were applied to peanut to evaluate their effects on controlling leaf spot and Southern blight and their effects on peanut yield. Treatments evaluated Lucento applied with either Bravo® or Topsin® + Penncozeb®. These treatments were then followed by either Folicur or Abound. Fungicides applied, rates and timing can be viewed in Tables 1 and 2. All fungicide programs reduced leaf spot when compared to the untreated control (Table 1). While Southern blight occurrence was extremely low in this trial, it was reduced with fungicide applications when compared to the untreated control (Table 2). Yield was increased with all fungicide programs when compared to the untreated control (Table 2).

Trial PFCS20-10 was also established to evaluate peanut disease response to different timings of Lucento in Spanish peanut (Ole). Fungicides were applied to peanuts to evaluate their effects on controlling leaf spot and Southern blight and their effects on peanut yield. Lucento was applied either P1 and P3 or P2 and P4. These were then applied in a treatment regimen that included Bravo®, Bravo® and Folicur®, or Bravo® and Headline®. Fungicides applied, rates and timing can be viewed in Tables 3 and 4. All fungicide programs reduced leaf spot when compared to the untreated control (Table 3). Southern blight incidence was very low and was not affected by fungicide treatments (Table 4). Yield was increased with all fungicide programs when compared to the untreated control (Table 4).

The pesticide information presented in this publication was current with federal and state regulations at the time of printing. The user is responsible for determining that the intended use is consistent with the label of the product being used. Use pesticides safely. Read and follow label directions. The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

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**Table 1. Fungicide effects on leaf spot in peanut in Fort Cobb, Oklahoma 2020.**

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Peanut LFSpot % 8/7	Peanut LFSpot % 9/2	Peanut LFSpot % 9/24	Peanut LFSpot FLScale 10/15	Peanut Defol % 9/24
1	Untreated				1	15	58	8.5	10
2	Bravo®	24	floz/A	P1	0	2	1	4.3	0
	Lucento®	5.5	floz/A	P2					
	Folicur®	7.2	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Bravo®	24	floz/A	P5					
3	Bravo®	24	floz/A	P1	0	0	1	4.3	0
	Lucento®	5.5	floz/A	P2					
	Abound®	18.5	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Bravo®	24	floz/A	P5					
4	Topsin®	0.5	lb/A	P1	0	2	3	4.5	0
	Penncozeb®	1.5	lb/A	P1					
	Lucento®	5.5	floz/A	P2					
	Folicur®	7.2	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Marvis®	3.4	floz/A	P5					
5	Topsin®	0.5	lb/A	P1	0	0	1	3.8	0
	Penncozeb®	1.5	lb/A	P1					
	Lucento®	5.5	floz/A	P2					
	Abound®	18.5	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Marvis®	3.4	floz/A	P5					
6	Topsin®	0.5	lb/A	P1	0	0	0	4.5	0
	Penncozeb®	1.5	lb/A	P1					
	Lucento®	5.5	floz/A	P2					
	Elatus®	7.3	oz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Marvis®	3.4	floz/A	P5					
7	Headline®	23.6	floz/A	P1	0	0	0	4.8	0
	Lucento®	5.5	floz/A	P2					
	Folicur®	7.2	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Marvis®	3.4	floz/A	P5					
8	Headline®	23.6	floz/A	P1	0	0	0	6.0	0
	Lucento®	5.5	floz/A	P2					
	Abound®	18.5	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Marvis®	3.4	floz/A	P5					
9	Headline®	23.6	floz/A	P1	0	0	0	5.5	0
	Lucento®	5.5	floz/A	P2					
	Elatus®	7.3	oz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Marvis®	3.4	floz/A	P5					
	LSD P=.10				0.3	2.7	7.5	0.9	2.4
	Standard Deviation				0	2	6	0.7	2
	CV				163	96	87	13.8	169
	Treatment Prob (F)				0.0464	0.0001	0.0001	0.0001	0.0001

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**Table 2. Fungicide effects on Southern blight and yield of peanut in Fort Cobb, Oklahoma 2020.**

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Peanut SBlight % 8/7	Peanut SBlight % 9/2	Peanut SBlight % 9/24	Peanut Yield lb/A 10/21
1	Untreated				0	0	2	3935
2	Bravo®	24	floz/A	P1	0	0	0	5009
	Lucento®	5.5	floz/A	P2				
	Folicur®	7.2	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Bravo®	24	floz/A	P5				
3	Bravo®	24	floz/A	P1	0	0	0	5242
	Lucento®	5.5	floz/A	P2				
	Abound®	18.5	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Bravo®	24	floz/A	P5				
4	Topsin®	0.5	lb/A	P1	0	0	0	5126
	Penncozeb®	1.5	lb/A	P1				
	Lucento®	5.5	floz/A	P2				
	Folicur®	7.2	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Marvis®	3.4	floz/A	P5				
5	Topsin®	0.5	lb/A	P1	0	0	0	5532
	Penncozeb®	1.5	lb/A	P1				
	Lucento®	5.5	floz/A	P2				
	Abound®	18.5	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Marvis®	3.4	floz/A	P5				
6	Topsin®	0.5	lb/A	P1	0	0	0	5343
	Penncozeb®	1.5	lb/A	P1				
	Lucento®	5.5	floz/A	P2				
	Elatus®	7.3	oz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Marvis®	3.4	floz/A	P5				
7	Headline®	23.6	floz/A	P1	0	0	0	4966
	Lucento®	5.5	floz/A	P2				
	Folicur®	7.2	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Marvis®	3.4	floz/A	P5				
8	Headline®	23.6	floz/A	P1	0	0	1	5067
	Lucento®	5.5	floz/A	P2				
	Abound®	18.5	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Marvis®	3.4	floz/A	P5				
9	Headline®	23.6	floz/A	P1	0	0	0	5126
	Lucento®	5.5	floz/A	P2				
	Elatus®	7.3	oz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Marvis®	3.4	floz/A	P5				
	LSD P=.10				NS	NS	1.2	485
	Standard Deviation				0	0	1	401
	CV				600	342	203	8
	Treatment Prob (F)				0.4613	0.6311	0.0515	0.0009

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Table 3. Fungicide effects on leaf spot in peanut in Fort Cobb, Oklahoma 2020.

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Peanut LFSpot % 8/7	Peanut LFSpot % 9/2	Peanut LFSpot % 9/24	Peanut LFSpot FLScale 10/15
1	Untreated				2	25	85	9.0
2	Lucento®	5.5	floz/A	P1	0	1	1	5.0
	Bravo®	24	floz/A	P2				
	Lucento®	5.5	floz/A	P3				
	Bravo®	24	floz/A	P4				
	Bravo®	24	floz/A	P5				
3	Bravo®	24	floz/A	P1	0	1	2	5.0
	Lucento®	5.5	floz/A	P2				
	Bravo®	24	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Bravo®	24	floz/A	P5				
4	Lucento®	5.5	floz/A	P1	1	0	1	5.3
	Bravo®	24	floz/A	P2				
	Lucento®	5.5	floz/A	P3				
	Folicur®	7.2	floz/A	P4				
	Bravo®	24	floz/A	P5				
5	Bravo®	24	floz/A	P1	0	3	4	4.3
	Lucento®	5.5	floz/A	P2				
	Folicur®	7.2	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Bravo®	24	floz/A	P5				
6	Bravo®	24	floz/A	P1	0	0	0	5.0
	Lucento®	5.5	floz/A	P2				
	Headline®	15	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Bravo®	24	floz/A	P5				
7	Lucento®	5.5	floz/A	P1	0	2	1	4.8
	Bravo®	24	floz/A	P2				
	Lucento®	5.5	floz/A	P3				
	Headline®	15	floz/A	P4				
	Bravo®	24	floz/A	P5				
8	Bravo®	24	floz/A	P1	0	0	1	4.0
	Lucento®	5.5	floz/A	P2				
	Abound®	18.5	floz/A	P3				
	Lucento®	5.5	floz/A	P4				
	Bravo®	24	floz/A	P5				
9	Lucento®	5.5	floz/A	P1	0	0	1	5.5
	Abound®	18.5	floz/A	P2				
	Lucento®	5.5	floz/A	P3				
	Bravo®	24	floz/A	P4				
	Bravo®	24	floz/A	P5				

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Peanut LFSpot % 8/7	Peanut LFSpot % 9/2	Peanut LFSpot % 9/24	Peanut LFSpot FLScale 10/15
10	Bravo®	24	floz/A	P1	0	0	0	4.3
	Elatus®	7.3	oz/A	P2				
	Bravo®	24	floz/A	P3				
	Elatus®	7.3	oz/A	P4				
	Bravo®	24	floz/A	P5				
11	Bravo®	24	floz/A	P1	0	1	2	6.0
	Bravo®	24	floz/A	P2				
	Bravo®	24	floz/A	P3				
	Bravo®	24	floz/A	P4				
	Bravo®	24	floz/A	P5				
LSD P=.10					0.5	2.6	2.2	1.3
Standard Deviation					0	2	2	1.1
CV					151	74	21	19.9
Treatment Prob (F)					0.0001	0.0001	0.0001	0.0001



Table 4. Fungicide effects on defoliation, Southern blight and yield of peanut in Fort Cobb, Oklahoma 2020.

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Peanut Defol % 9/2	Peanut Defol % 9/24	Peanut SBlight % 9/2	Peanut SBlight % 9/24	Peanut Yield lb/A 10/21
1	Untreated				1	28	0	1	3659
2	Lucento®	5.5	floz/A	P1	0	0	0	1	4530
	Bravo®	24	floz/A	P2					
	Lucento®	5.5	floz/A	P3					
	Bravo®	24	floz/A	P4					
	Bravo®	24	floz/A	P5					
3	Bravo®	24	floz/A	P1	0	0	0	1	4719
	Lucento®	5.5	floz/A	P2					
	Bravo®	24	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Bravo®	24	floz/A	P5					
4	Lucento®	5.5	floz/A	P1	0	0	0	1	4617
	Bravo®	24	floz/A	P2					
	Lucento®	5.5	floz/A	P3					
	Folicur®	7.2	floz/A	P4					
	Bravo®	24	floz/A	P5					
5	Bravo®	24	floz/A	P1	0	0	0	0	4603
	Lucento®	5.5	floz/A	P2					
	Folicur®	7.2	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Bravo®	24	floz/A	P5					
6	Bravo®	24	floz/A	P1	0	0	0	1	5169
	Lucento®	5.5	floz/A	P2					
	Headline®	15	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Bravo®	24	floz/A	P5					
7	Lucento®	5.5	floz/A	P1	0	0	0	1	5387
	Bravo®	24	floz/A	P2					
	Lucento®	5.5	floz/A	P3					
	Headline®	15	floz/A	P4					
	Bravo®	24	floz/A	P5					
8	Bravo®	24	floz/A	P1	0	0	0	1	5140
	Lucento®	5.5	floz/A	P2					
	Abound®	18.5	floz/A	P3					
	Lucento®	5.5	floz/A	P4					
	Bravo®	24	floz/A	P5					
9	Lucento®	5.5	floz/A	P1	0	0	0	1	4850
	Abound®	18.5	floz/A	P2					
	Lucento®	5.5	floz/A	P3					
	Bravo®	24	floz/A	P4					
	Bravo®	24	floz/A	P5					

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	Peanut Defol % 9/2	Peanut Defol % 9/24	Peanut SBlight % 9/2	Peanut SBlight % 9/24	Peanut Yield lb/A 10/21
10	Bravo®	24	floz/A	P1	0	0	0	0	4922
	Elatus®	7.3	oz/A	P2					
	Bravo®	24	floz/A	P3					
	Elatus®	7.3	oz/A	P4					
	Bravo®	24	floz/A	P5					
11	Bravo®	24	floz/A	P1	0	0	0	0	4298
	Bravo®	24	floz/A	P2					
	Bravo®	24	floz/A	P3					
	Bravo®	24	floz/A	P4					
	Bravo®	24	floz/A	P5					
LSD P=.10					1	3	0	1	368
Standard Deviation					1	3	0	1	307
CV					663	101	337	165	7
Treatment Prob(F)					0.4654	0.0001	0.7363	0.5268	0.0001