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## Historical Summary of the Selection of USU-Perigee

USU Crop Physiology Lab

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**F2 JAN 2000**

Selected 48		
ID	Anthesis	Height
1	28	28
2	27	28
3	27	27
4	30	29
5	30	31
6	30	25
7	30	28
8	30	30
9	30	31
10	30	30
11	31	27
12	29	26
13	30	26
14	29	31
15	30	32
16	31	26
17	30	25
18	29	31
19	30	30
20	31	26
21	30	30
22	30	29
23	31	25
24	30	29
25	28	32
26	30	30
27	30	30
28	30	30
29	29	31
30	29	28
31	27	31
32	29	29
33	29	32
34	30	26
35	31	27
36	28	26
37	29	27
38	29	30
39	29	30
40	30	27
41	31	28
42	29	29
43	31	27
44	30	27
45	29	30
46	29	29
47	30	31
48	30	31
49	36	28
50	31	29
51	31	28
52	32	28
53	36	27
54	33	31
55	32	30
56	na	32
57	33	27
58	30	33
59	29	33
60	31	35
61	34	29
62	36	26
63	28	33
64	28	38
65	27	38
66	33	29
67	30	33
68	33	32

**F3 APR 2000**

Selected 24		
ID	Ht (cm)	Flag leaf (cm)
17	28	16.3
20	28	14.0
6	29	15.7
16	29	17.3
35	29	15.0
36	29	13.7
7	30	14.7
8	30	17.0
19	30	16.7
28	30	16.0
40	30	15.0
43	30	14.0
3	31	14.3
11	31	16.7
21	31	17.3
30	31	12.7
34	31	14.7
41	31	13.7
42	31	15.7
2	32	14.7
5	32	15.3
15	32	14.3
26	32	14.7
27	32	16.0
13	28	13.7
12	29	14.3
4	30	14.7
32	30	14.0
29	31	16.0
37	31	16.0
44	31	14.3
38	32	16.3
39	32	15.0
1	33	16.3
9	33	17.7
10	33	18.0
22	33	19.0
23	33	15.0
24	33	14.0
31	33	13.3
46	33	17.3
47	33	17.3
48	33	18.0
14	34	17.0
18	34	15.7
25	34	19.3
33	34	14.7
45	34	13.7

Selection based on height, small flag leaf and appearance  
 Mass selection (all seed of a selected line was combined)

**F4 JUL 2000**

Selected 12		
ID	Yield g	Ht cm
42	293	30.5
19	289	30.0
20	281	29.0
5	273	35.0
11	273	29.5
28	272	29.5
21	270	29.0
27	267	29.5
3	260	30.0
17	258	29.0
26	251	30.0
34	246	29.0
237	29.0	
220	28.5	
218	30.5	
215	28.5	
209	31.5	
208	28.0	
208	29.0	
203	30.0	
195	30.0	
191	30.0	
189	29.0	
177	30.0	

Selection based on yield  
 Mass selection

**F5 NOV 2000**

Selected 6	
ID	Yield g
11	627
28	619
19	606
17	588
5	565
21	561
42	539
26	531
34	528
20	523
3	514
27	465

Selection based on yield.  
 Mass selection

Yield trials →

**F6 MAY 2001**

ID	Yield g
19	681
11	621
28	605
5	601
17	589
3-2-3	583
21	555
Super Dwarf	410

**F7 AUG 2001**

Replicate trial			
ID	Yield g	% of 19	
19	492	100	
11	462	94	
3-2-3	452	92	
17	446	91	
21	443	90	
28	414	84	
5	381	77	
Super Dwarf	355	72	

**F8 JAN 2002**

Selected 3		
ID	Yield g	% of 19
19	582	100
17	547	94
11	535	92
21	526	90
3-2-3	523	90
5	523	90
28	519	89
Super Dwarf	436	75

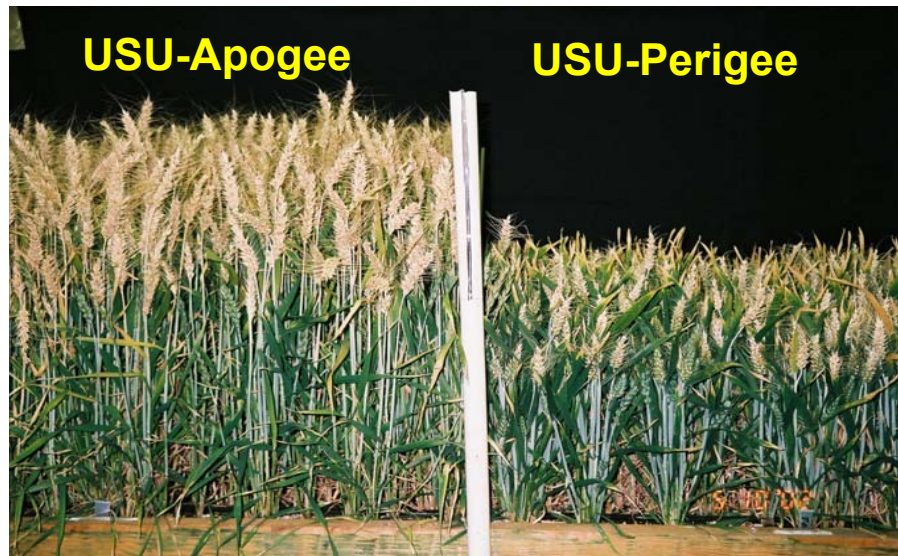
**F9 MAY 2002**

Final selection			
ID	Yield g	% APO	
9-2-2	870	110	
Apogee	795	100	
19	732	92	
3-2-3	697	88	
17	653	82	
11	611	77	

**F10 SEP 2002**

USU-Perigee (19)			
ID	Yield g	% APO	
Apogee	2038	100	
Perigee	1778	87	

**Historical Summary of the Selection of USU-Perigee (formerly line 19)**  
 USU-Apogee was back-crossed with line 3-2-3 in 1999 to get an improved super dwarf wheat. Sixty-eight seeds were planted from the F<sub>1</sub> generation. This table summarizes the two year selection process from F<sub>2</sub> to F<sub>10</sub> generations. USU-Perigee is the same height as Super-Dwarf but yields 30% better.



Selection based on height, days to anthesis & appearance  
 Single plant selection