plot	Trt	Rep	Location	Year	DF	DM	BPP	PHT
1	Acc-051-02	1	HUMERA	1	51	96	3.4	117.2
2	Acc-051-02	2	HUMERA	1	49	95	3.2	115.8
3	Acc-051-02	3	HUMERA	1	52	94	3.2	125
4	Acc-051-02	1	HUMERA	1	51	96	5.2	169.4
5	Acc-051-02	2	HUMERA	1	51	92	4.6	135
6	Acc-051-02	3	HUMERA	1	54	94	4	122.4
7	Acc-051-02	1	HUMERA	1	51	96	2	150.2
8	Acc-051-02	2	HUMERA	1	49	94	2.6	145.6
9	Acc-051-02	3	HUMERA	1	54	94	3.2	138.6
10	Acc-051-02	1	HUMERA	1	48	95	4.6	155.2
11	Acc-051-02	2	HUMERA	1	51	96	2.8	145.2
12	Acc-051-02	3	HUMERA	1	53	94	3	138.8
13	Acc-111-84	1	HUMERA	1	57	96	3.6	140.8
14	Acc-111-84	2	HUMERA	1	55	94	2.2	126.2
15	Acc-111-84	3	HUMERA	1	54	93	4.4	147
16	Acc-202-37	1	HUMERA	1	52	95	3.6	149.2
17	Acc-202-37	2	HUMERA	1	51	93	4.2	155
18	Acc-202-37	3	HUMERA	1	53	93	4.6	163.8
19	cross22XT-	1	HUMERA	1	51	95	3.4	166.2
20	cross22XT-	2	HUMERA	1	50	97	4	154
21	cross22XT-	3	HUMERA	1	53	98	3.2	118.4
22	cross22XT-	1	HUMERA	1	53	94	3	132.2
23	cross22XT-	2	HUMERA	1	54	93	3.6	125.8
24	cross22XT-	3	HUMERA	1	53	96	4.6	144.8
25	Hirhir (Loca	1	HUMERA	1	51	98	4	191.2
26	Hirhir (Loca	2	HUMERA	1	53	92	5.2	169
27	Hirhir (Loca	3	HUMERA	1	53	95	4.8	150.6
28	NN-038	1	HUMERA	1	50	95	3.8	137.2
29	NN-038	2	HUMERA	1	51	94	4.4	179.2
30	NN-038	3	HUMERA	1	51	94	3.4	157.4
31	serkamowł	1	HUMERA	1	51	94	4	165.8
32	serkamowł	2	HUMERA	1	50	95	4	163.2
33	serkamowł	3	HUMERA	1	52	94	3.8	147.6
34	Tate	1	HUMERA	1	53	96	6	123.4
35	Tate	2	HUMERA	1	52	96	5.6	126.4
36	Tate	3	HUMERA	1	53	94	4.6	144
1	Acc-051-02	1	HUMERA	2	39	87	1.6	113.8
2	Acc-051-02	2	HUMERA	2	39	87	3.6	128.8
3	Acc-051-02	3	HUMERA	2	40	87	2.6	125.4
4	Acc-051-02	1	HUMERA	2	42	84	1.6	115
5	Acc-051-02	2	HUMERA	2	42	84	2.2	110.4
6	Acc-051-02	3	HUMERA	2	43	84	2.2	111.4
7	Acc-051-02	1	HUMERA	2	40	89	2.8	133.8
8	Acc-051-02	2	HUMERA	2	40	89	3.4	134.4
9	Acc-051-02	3	HUMERA	2	42	89	3.2	128
10	Acc-051-02	1	HUMERA	2	39	87	2.8	134
11	Acc-051-02	2	HUMERA	2	40	84	3.2	142
12	Acc-051-02	3	HUMERA	2	41	84	1.8	146.2
13	Acc-111-84	1	HUMERA	2	43	89	2.4	130.2

14	Acc-111-84	2	HUMERA	2	42	89	2.6	109.4
15	Acc-111-84	3	HUMERA	2	43	84	2.4	135
16	Acc-202-37	1	HUMERA	2	42	88	2	143
17	Acc-202-37	2	HUMERA	2	41	84	2.8	109.4
18	Acc-202-37	3	HUMERA	2	42	84	3	127.8
19	cross22XT-	1	HUMERA	2	41	84	1.6	128
20	cross22XT-	2	HUMERA	2	40	84	2.2	135.8
21	cross22XT-	3	HUMERA	2	41	84	2.2	119.8
22	cross22XT-	1	HUMERA	2	43	88	1.4	115.6
23	cross22XT-	2	HUMERA	2	43	88	1.4	138.4
24	cross22XT-	3	HUMERA	2	41	88	2	129
25	Hirhir (Loca	1	HUMERA	2	40	83	2.4	115.8
26	Hirhir (Loca	2	HUMERA	2	40	83	3	117.8
27	Hirhir (Loca	3	HUMERA	2	40	83	3.2	110.8
28	NN-038	1	HUMERA	2	40	84	1	106.2
29	NN-038	2	HUMERA	2	41	84	1.4	112.6
30	NN-038	3	HUMERA	2	42	84	1.6	131.8
31	serkamowł	1	HUMERA	2	41	89	1.6	125.2
32	serkamowł	2	HUMERA	2	41	89	2.6	126.2
33	serkamowł	3	HUMERA	2	43	89	2.4	128.2
34	Tate	1	HUMERA	2	43	89	2.4	116.6
35	Tate	2	HUMERA	2	43	89	2.6	118.2
36	Tate	3	HUMERA	2	43	89	3	128.2
1	Acc-051-02	1	HUMERA	3	42	82	2	116.8
2	Acc-051-02	2	HUMERA	3	44	82	1.4	103.4
3	Acc-051-02	3	HUMERA	3	42	82	1.6	95
4	Acc-051-02	1	HUMERA	3	43	82	2	88.8
5	Acc-051-02	2	HUMERA	3	43	84	2	112.4
6	Acc-051-02	3	HUMERA	3	42	82	2	104
7	Acc-051-02	1	HUMERA	3	44	85	2	153.2
8	Acc-051-02	2	HUMERA	3	43	85	1.4	122.8
9	Acc-051-02	3	HUMERA	3	44	85	2	115
10	Acc-051-02	1	HUMERA	3	45	86	2.8	135.4
11	Acc-051-02	2	HUMERA	3	45	86	3	118.6
12	Acc-051-02	3	HUMERA	3	45	86	2	112.6
13	Acc-111-84	1	HUMERA	3	48	83	1.4	72.4
14	Acc-111-84	2	HUMERA	3	44	83	1.6	114.8
15	Acc-111-84	3	HUMERA	3	45	83	1	109.8
16	Acc-202-37	1	HUMERA	3	44	84	2	114.4
17	Acc-202-37	2	HUMERA	3	44	84	2.4	113
18	Acc-202-37	3	HUMERA	3	45	83	2.2	100
19	cross22XT-	1	HUMERA	3	47	83	2	102.4
20	cross22XT-	2	HUMERA	3	44	83	2.2	119
21	cross22XT-	3	HUMERA	3	47	83	1.4	125.6
22	cross22XT-	1	HUMERA	3	43	83	1.2	123.2
23	cross22XT-	2	HUMERA	3	44	82	2.2	105.8
24	cross22XT-	3	HUMERA	3	47	82	2.4	126
25	Hirhir (Loca	1	HUMERA	3	42	82	1.6	96
26	Hirhir (Loca	2	HUMERA	3	43	81	2	112
27	Hirhir (Loca	3	HUMERA	3	45	82	1.8	104

28	NN-038	1	HUMERA	3	43	83	1.4	93.6
29	NN-038	2	HUMERA	3	44	84	2	104.8
30	NN-038	3	HUMERA	3	45	84	2.4	111.2
31	serkamowł	1	HUMERA	3	43	84	2	119.6
32	serkamowł	2	HUMERA	3	44	84	2	113.8
33	serkamowł	3	HUMERA	3	44	84	2.2	127.8
34	Tate	1	HUMERA	3	48	83	2.2	77.4
35	Tate	2	HUMERA	3	48	83	2.6	86.6
36	Tate	3	HUMERA	3	47	83	2.4	82.2

LPBZ	PPP	SPP	TSW	yield (kg/ha)
63.4	28.6	62.6	2.7	389.7
45.6	25.6	57.5	3.1	386
53.4	32	59.5	2.8	510.8
79.2	42.6	57.4	2.8	573.6
31	51	59.9	3.2	431.9
64.4	26.8	59.8	2.9	497.4
41.6	37.4	58.2	3.1	562.8
20.2	30.2	63.9	2.7	328.9
60.6	35.4	66.2	3.1	357.6
67	36.4	56	3	553.8
68.6	30.2	57.2	3	501.7
59	35.6	61.1	3	556.6
45.8	30.2	54.5	2.7	266.6
15	25	61.7	2.6	236.1
50.8	25.6	58.8	2.5	460
51.6	38.2	61.3	3	543.7
83.2	41.4	60.2	2.8	649
63.4	43.4	62.9	2.7	540.1
83.6	43	57.6	2.8	334.3
69.4	38.6	51	2.9	538.2
64.4	33.6	59	2.8	343.1
73.4	30.4	51.4	2.9	288.7
50.6	31	56.7	2.8	308.1
81	29.4	55.9	3	356.7
83.6	30.4	60.3	3.5	610.8
89.4	44	63.6	3	748.5
72.4	36.4	58.5	3	679.65
73.2	56.4	53.9	2.8	336.5
83	54.8	48.9	2.8	665.4
82.2	55.4	54.8	2.7	539.3
72.6	30.8	54.8	3.3	748.5
41.4	38.7	56.9	3.1	529.5
44.2	20.8	63.3	3.2	468.6
65.2	35.6	57.2	2.8	569.7
74.6	34.4	55.8	2.7	836.3
68.2	51.6	49.7	2.6	686.7
48	34.8	65.8	2.7	673
75.2	36.2	61	3.1	850.25
63.8	41	60.2	2.8	651.375
55.4	20.6	54.4	2.8	849.375
64.4	42.4	63.8	3.2	974.1875
52.4	28	62.2	2.9	922.5625
66.8	38	59.8	3.1	936.625
51.4	38.2	64.6	2.7	926.5625
68.8	21.2	67.4	3.1	890.125
73.6	43.8	49	3	960.3125
84.6	52.2	58	3	905.6875
81.4	35	51	3	794.5625
51.8	25.2	50.8	2.7	833.5

44.6	29.6	56.2	2.6	760.125
5.8	29.2	51	2.5	755.8125
71.6	34.2	61.6	3	837.1875
58.8	37.8	56.6	2.8	867.25
42.4	23.8	62	2.7	766.0625
59.2	38.4	57.2	2.8	656.3125
63	38.8	46.6	2.9	578.125
57.2	30.8	58	2.8	580.75
30	12.2	48.4	3	821.125
67	33.2	43	2.9	856.625
70.4	32.4	54	2.8	878.9375
66.8	36.8	63.4	2.9	1211.875
62.6	36.2	69.4	3	1148.438
57	31.6	61.4	3	1124.125
53.4	29.4	50.2	2.8	693.75
50.6	18.8	41.4	2.8	694.9375
72	29.8	57.8	2.7	868.4375
61	26.4	52.6	3.3	808.4375
55.2	27.8	57.4	3.1	980.3125
65.8	34.6	67	3.2	964.6875
71.6	43.4	61.4	2.8	886.75
51.8	33.4	52.8	2.7	881.75
50.4	36.2	40.6	2.6	782.8125
33.6	23.2	58.2	2.7	464
32.4	13.4	67.2	2.6	597.6416
32.6	10	66.6	2.5	489.2984
27.2	24.2	57.2	2.9	373.5849
33.6	20.6	57.8	3	574.4348
37.6	23	55.6	3	458.8777
44.6	35.6	63.4	3	662.964
40.2	23.6	59.8	2.9	634.2857
51.6	28.8	59.4	2.8	683.4783
48.2	21.2	61	3	588.5217
44.4	25.6	63.8	2.8	455.1016
37.8	27.2	63.8	2.7	677.3617
21.8	8.6	56.6	3.1	553.5135
30.4	17.2	63.2	2.7	413.4737
32	15	65	3.1	562.7907
33	24	57.6	2.8	467.5459
44.6	18.6	56.4	2.8	504.3978
30.2	18.4	51.8	2.7	528.2945
37.2	14.2	63	3	698.2169
34.8	27.4	66.4	3	704.5217
42.8	17	61.2	3	764.8182
51	27.4	57	3.3	523.9407
33.6	25.6	56.4	3.1	539.3882
54.8	22.6	59.6	3.2	508.4932
63.8	33.4	58	2.8	937.2754
50.6	33	55.4	3	814.9721
69.8	34.6	60	2.8	880.9231

35.8	12.2	59.4	3	513.4857
38	21.6	54	3.1	670.6182
55	28.6	58.8	2.8	592.0894
39.6	20.2	53	2.8	783.5152
39	18.8	58.8	2.7	786.8936
40.6	26.8	58.8	2.6	737.9091
29.6	21.4	60.4	2.8	418.0513
21.4	18.8	56	3.2	517.3472
30.4	19.2	57.4	2.9	675.7989

The abrevations and their stand is listed below

DF: Days to 50% flowering; **DM**: Days to 50% maturity; **BPP**: number of branches per plant;
PH: Plant height (cm); **PPP:** Pods per plant; **SPP:** Seeds per pod;
LPBZ: Length of pod bearing zone (cm), **TSW:** Thousand seed weight (gram).
The experiment was conducted for three years in Humera in a randomized complete block design with three replications. 12 advanced lines which come from previous selections were used in the experiment and these advenced lines were tested for three years.

All of the yieled and other agronomic traits were collected from the 12 advanced lines conducted for three years