OPICO Air 8 mechanical drive calibration test (model year 2000 onward)

Seed rate - to calculate the seed rate, apply the following formula: -

$$\frac{\textit{Area}}{\textit{drive wheel circumference} \times \textit{drive wheel turns} \times \textit{working width}} \times \textit{seed weight} = \textit{Quantity seed / area}$$

e.g. To calculate seed rate in kg/ha

6mtr working width
1.35mtr drive wheel
50 drive wheel turns
0.6kg collected seed

$$\frac{10{,}000m^2}{1.35mtr \times 50 \times 6mtr} \times 0.6\ kg = 14.8\ Kg/ha$$

Remove back cover and place the calibration tray into distributor roller. Set the seed rate adjuster to required output (each increment on 0–40 scale equates to 1kg/ha approximately); check seed retaining brush setting. Turn the drive wheel 50 times, collect and weigh the delivered seed in kg, multiply this weight by 24.7 to give a seed rate in kg/ha for a Air 8 pneumatic seed box & 6m Grass Harrow. NOTE: effective drive wheel circumference will vary depending on the ground conditions

For more information on changing seed rates and settings please refer to the operator's manual.

Table 1. Calibration factor for different working widths (on firm ground)

Working width	2.75m	3.0m	3.5m	4.0m	4.5m	5.0m	5.5m	6.0m	
Factor for 1ha - 10,000m^2	53.9	49.4	42.3	37.0	32.9	29.6	26.9	24.7	Multiply calibrated seed weight by factor = kg / ha
Factor for 1ac - 4,047m^2	21.8	20.0	17.1	15.0	13.3	12.0	10.9	10.0	Multiply calibrated seed weight by factor = kg / ac

Weight conversion charts

kg		lb
0.5	1	2.2
0.9	2	4.4
1.4	3	6.6
1.8	4	8.8
2.3	5	11.0
2.7	6	13.2
3.2	7	15.4
3.6	8	17.6
4.1	9	19.8
4.5	10	22.0
5.0	11	24.3
5.4	12	26.5
5.9	13	28.7
6.4	14	30.9
6.8	15	33.1
7.3	16	35.3
7.7	17	37.5
8.2	18	39.7
8.6	19	41.9
9.1	20	44.1
9.5	21	46.3
10.0	22	48.5
10.4	23	50.7
10.9	24	52.9
11.3	25	55.1
11.8	26	57.3
12.2	27	59.5
12.7	28	61.7
13.2	29	63.9
13.6	30	66.1
14.1	31	68.3
14.5	32	70.5
15.0	33	72.8
15.4	34	75.0
15.9	35	77.2
16.3	36	79.4
16.8	37	81.6
17.2	38	83.8
17.7	39	86.0
18.1	40	88.2
18.6	41	90.4
19.1	42	92.6
19.5	43	94.8
20.0	44	97.0
20.4	45	99.2
20.9	46	101.4
21.3	47	103.6
21.8	48	105.8
22.2	49	108.0
22.7	50	110.2

ac		ha
2.5	1	0.4
4.9	2	0.8
7.4	3	1.2
9.9	4	1.6
12.4	5	2.0
14.8	6	2.4
17.3	7	2.8
19.8	8	3.2
22.2	9	3.6
24.7	10	4.0
27.2	11	4.5
29.7	12	4.9
32.1	13	5.3
34.6	14	5.7
37.1	15	6.1
39.5	16	6.5
42.0	17	6.9
44.5	18	7.3
47.0	19	7.7
49.4	20	8.1
51.9	21	8.5
54.4	22	8.9
56.8	23	9.3
59.3	24	9.7
61.8	25	10.1
64.2	26	10.5
66.7	27	10.9
69.2	28	11.3
71.7	29	11.7
74.1	30	12.1
76.6	31	12.5
79.1	32	12.9
81.5	33	13.4
84.0	34	13.8
86.5	35	14.2
89.0	36	14.6
91.4	37	15.0
93.9	38	15.4
96.4	39	15.8
98.8	40	16.2
101.3	41	16.6
103.8	42	17.0
106.3	43	17.4
108.7	44	17.8
111.2	45	18.2
113.7	46	18.6
116.1	47	19.0
118.6	48	19.4
121.1	49	19.8
123.6	50	20.2

lb/ac		kg/ha
0.9	1	1.1
1.8	2	2.2
2.7	3	3.4
3.6	4	4.5
4.5	5	5.6
5.4	6	6.7
6.2	7	7.8
7.1	8	9.0
8.0	9	10.1
8.9	10	11.2
9.8	11	12.3
10.7	12	13.5
11.6	13	14.6
12.5	14	15.7
13.4	15	16.8
14.3	16	17.9
15.2	17	19.1
16.1	18	20.2
17.0	19	21.3
17.8	20	22.4
18.7	21	23.5
19.6	22	24.7
20.5	23	25.8
21.4	24	26.9
22.3	25	28.0
23.2	26	29.1
24.1	27	30.3
25.0	28	31.4
25.9	29	32.5
26.8	30	33.6
27.7	31	34.7
28.5	32	35.9
29.4	33	37.0
30.3	34	38.1
31.2	35	39.2
32.1	36	40.4
33.0	37	41.5
33.9	38	42.6
34.8	39	43.7
35.7	40	44.8
36.6	41	46.0
37.5	42	47.1
38.4	43	48.2
39.3	44	49.3
40.1	45	50.4
41.0	46	51.6
41.9	47	52.7
42.8	48	53.8
43.7	49	54.9
44.6	50	56.0

kg/ac		kg/ha
0.4	1	2.5
0.8	2	4.9
1.2	3	7.4
1.6	4	9.9
2.0	5	12.4
2.4	6	14.8
2.8	7	17.3
3.2	8	19.8
3.6	9	22.2
4.0	10	24.7
4.5	11	27.2
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13.4	33	81.5
13.8	34	84.0
14.2	35	86.5
14.6	36	89.0
15.0	37	91.4
15.4	38	93.9
15.8	39	96.4
16.2	40	98.8
16.6	41	101.3
17.0	42	103.8
17.4	43	106.3
17.8	44	108.7
18.2	45	111.2
18.6	46	113.7
19.0	47	116.1
19.4	48	118.6
19.8	49	121.1
20.2	50	123.6

kg/ha	g/m^2
10	1
20	2
30	3
40	4
50	5
60	6
70	7
80	8
90	9
100	10
110	11
120	12
130	13
140	14
150	15
160	16
170	17
180	18
190	19
200	20
210	21
220	22
230	23
240	24
250	25
260	26
270	27
280	28
290	29
300	30
310	31
320	32
330	33
340	34
350	35
360	36
370	37
380	38
390	39
400	40

Metric to imperial conversion chart