

## Appendix

**Table 4:** Effect of herbicides on Indian hedge mustard (IHM) and common sowthistle seed set on sandy alkaline soils at Wards Hill, 2022.

Herbicide treatment (commercial product rate)	Common sowthistle pods/m <sup>2</sup>	Indian hedge mustard pods/m <sup>2</sup>
Diuron 550g/ha (PSPE)	11.8 <sup>def</sup>	8.5 <sup>cde</sup>
Intercept® 600mL/ha (POST)	56.9 <sup>abc</sup>	137.1 <sup>b</sup>
Metribuzin 180g/ha (PSPE)	66.1 <sup>ab</sup>	28.7 <sup>c</sup>
Reflex® 1000mL/ha (IBS)	21.3 <sup>bcd</sup>	3.0 <sup>de</sup>
Reflex® 500mL/ha (IBS)	15.5 <sup>cde</sup>	2.1 <sup>de</sup>
Reflex® 500mL/ha (IBS) f/b* Diuron 550g/ha (PSPE)	0.0 <sup>f</sup>	0.0 <sup>e</sup>
Reflex® 500mL/ha (IBS) f/b Diuron 550g/ha (PSPE) f/b Intercept® 600mL/ha (POST)	0.3 <sup>ef</sup>	0.0 <sup>e</sup>
Reflex® 500mL/ha (IBS) f/b Metribuzin 180g/ha (PSPE)	21.5 <sup>bcd</sup>	0.9 <sup>de</sup>
Reflex® 500mL/ha (IBS) f/b Metribuzin 180g/ha (PSPE) f/b Intercept® 600mL/ha (POST)	1.6 <sup>def</sup>	0.0 <sup>e</sup>
Reflex® 750mL/ha (IBS)	18.1 <sup>cde</sup>	1.5 <sup>de</sup>
Terrain® 120g/ha (IBS)	12.0 <sup>def</sup>	12.5 <sup>cde</sup>
Terrain® 120g/ha (IBS) f/b Diuron 550g/ha (PSPE)	8.8 <sup>def</sup>	8.6 <sup>cde</sup>
Terrain® 120g/ha (IBS) f/b Diuron 550g/ha (PSPE) f/b Intercept® 600mL/ha (POST)	0.0 <sup>f</sup>	0.0 <sup>e</sup>
Terrain® 120g/ha (IBS) f/b metribuzin 180g/ha (PSPE)	8.8 <sup>def</sup>	0.0 <sup>e</sup>
Terrain® 120g/ha (IBS) f/b metribuzin 180g/ha (PSPE) f/b Intercept® 600mL/ha (POST)	0.0 <sup>f</sup>	6.7 <sup>cde</sup>
Unweeded control	103.4 <sup>a</sup>	288.0 <sup>a</sup>

\*f/b -followed by

**Table 5:** Effect of herbicides on broadleaf weeds (bifora, marshmallow, Indian hedge mustard and common sowthistle) and their seed set on clay loam soils at Paskeville, 2022.

Herbicide treatment (commercial product rate)	Bifora seeds/m <sup>2</sup>	Marshmallow pods/m <sup>2</sup>	Indian hedge mustard pods/m <sup>2</sup>	Common sowthistle pods/m <sup>2</sup>
Intercept® 600mL/ha (POST)	4 <sup>d</sup>	0 <sup>e</sup>	12 <sup>cde</sup>	135 <sup>e</sup>
Metribuzin 200g/ha (PSPE)	6416 <sup>b</sup>	1176 <sup>ab</sup>	924 <sup>a</sup>	581 <sup>abc</sup>
Reflex® 1000mL/ha (IBS)	0 <sup>d</sup>	231 <sup>cd</sup>	32 <sup>bcde</sup>	467 <sup>bcd</sup>
Reflex® 500mL/ha (IBS)	475 <sup>c</sup>	807 <sup>b</sup>	121 <sup>bc</sup>	818 <sup>a</sup>
Reflex® 500mL/ha (IBS) f/b Intercept® 600mL/ha (POST)	0 <sup>d</sup>	0 <sup>e</sup>	15 <sup>cde</sup>	54 <sup>efg</sup>

Reflex® 500mL/ha (IBS) f/b Metribuzin 200g/ha (PSPE) f/b Intercept® 600mL/ha (POST)	0 <sup>d</sup>	0 <sup>e</sup>	0 <sup>e</sup>	20 <sup>gh</sup>
Reflex® 500mL/ha (IBS) + Terbyne 1000g/ha (IBS) f/b Intercept® 600mL/ha (POST)	21 <sup>d</sup>	0 <sup>e</sup>	0 <sup>e</sup>	5 <sup>h</sup>
Reflex® 750mL/ha (IBS)	0 <sup>d</sup>	196 <sup>d</sup>	96 <sup>bcd</sup>	428 <sup>cd</sup>
Reflex® 750mL/ha (IBS) f/b Intercept® 600mL/ha (POST)	0 <sup>d</sup>	0 <sup>e</sup>	0 <sup>e</sup>	35 <sup>fgh</sup>
Reflex® 750mL/ha (IBS) f/b Metribuzin 200g/ha (PSPE) f/b Intercept® 600mL/ha (POST)	0 <sup>d</sup>	0 <sup>e</sup>	0 <sup>e</sup>	16 <sup>gh</sup>
Reflex® 750mL/ha (IBS) + Terbyne 1000g/ha (IBS) f/b Intercept® 600mL/ha (POST)	0 <sup>d</sup>	0 <sup>e</sup>	0 <sup>e</sup>	14 <sup>gh</sup>
Terbyne 1000g/ha (IBS)	8010 <sup>b</sup>	660 <sup>bc</sup>	190 <sup>b</sup>	104 <sup>ef</sup>
Terrain® 120g/ha (IBS)	11664 <sup>a</sup>	286 <sup>cd</sup>	169 <sup>b</sup>	296 <sup>d</sup>
Terrain® 120g/ha (IBS) f/b Intercept® 600mL/ha (POST)	58 <sup>d</sup>	0 <sup>e</sup>	37 <sup>bcde</sup>	18 <sup>gh</sup>
Terrain® 120g/ha (IBS) f/b Metribuzin 200g/ha (PSPE) f/b Intercept® 600mL/ha (POST)	0 <sup>d</sup>	0 <sup>e</sup>	0 <sup>e</sup>	42 <sup>efgh</sup>
Terrain® 120g/ha (IBS) + Terbyne 1000g/ha (IBS) f/b Intercept® 600mL/ha (POST)	10	0 <sup>e</sup>	3 <sup>de</sup>	37 <sup>fgh</sup>
Unweeded control	6724 <sup>b</sup>	1772 <sup>a</sup>	1069 <sup>a</sup>	713 <sup>ab</sup>

**Table 6:** Efficacy of herbicides on Indian hedge mustard and common sowthistle plant number on sandy alkaline soils at Wards Hill, 2022 (herbicide tolerance trial).

Herbicide treatment (commercial product rate)	Common sowthistle control (%)	Indian hedge mustard control (%)
Unsprayed control	0 <sup>a</sup>	0 <sup>a</sup>
Diuron 623g/ha (IBS)	64 <sup>bc</sup>	23 <sup>ab</sup>
Reflex® 500mL/ha (IBS)	73 <sup>bcde</sup>	94 <sup>defg</sup>
Reflex® 750mL/ha (IBS)	80 <sup>defg</sup>	98 <sup>fg</sup>
Reflex® 1000mL/ha (IBS)	94 <sup>i</sup>	95 <sup>defg</sup>
Terrain® 120g/ha (IBS)	69 <sup>bcd</sup>	70 <sup>bc</sup>
Reflex® 500mL/ha (IBS) f/b Diuron 623g/ha (PSPE)	63 <sup>b</sup>	82 <sup>bcd</sup>
Reflex® 500mL/ha (IBS) f/b Intercept® 500mL/ha (POST)	95 <sup>i</sup>	95 <sup>efg</sup>
Reflex® 500mL/ha (IBS) f/b diflufenican 150mL/ha (POST)	76 <sup>cde</sup>	100 <sup>g</sup>
Reflex® 500mL/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	97 <sup>i</sup>	100 <sup>g</sup>
Reflex® 500mL/ha (IBS) f/b Diuron 623g/ha (PSPE) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	90 <sup>fghi</sup>	100 <sup>g</sup>
Reflex® 500mL/ha (IBS) f/b Diuron 623g/ha (PSPE) f/b diflufenican 150mL/ha (POST)	92 <sup>fghi</sup>	100 <sup>g</sup>
Reflex® 500mL/ha (IBS) f/b Diuron 623g/ha (PSPE) f/b Intercept® 500mL/ha (POST)	94 <sup>i</sup>	91 <sup>defg</sup>
Reflex® 1000mL/ha (IBS) f/b Diuron 623g/ha (PSPE)	80 <sup>def</sup>	89 <sup>cdef</sup>

Reflex® 1000mL/ha (IBS) f/b Intercept® 500mL/ha (POST)	96 <sup>i</sup>	91 <sup>cdef</sup>
Reflex® 1000mL/ha (IBS) f/b diflufenican 150mL/ha (POST)	93 <sup>hi</sup>	100 <sup>g</sup>
Reflex® 1000mL/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	97 <sup>i</sup>	98 <sup>fg</sup>
Reflex® 1000mL/ha (IBS) f/b Diuron 623g/ha (PSPE) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	99 <sup>i</sup>	100 <sup>g</sup>
Reflex® 1000mL/ha (IBS) f/b Diuron 623g/ha (PSPE) f/b diflufenican 150mL/ha (POST)	94 <sup>hi</sup>	100 <sup>g</sup>
Reflex® 1000mL/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	95 <sup>i</sup>	95 <sup>defg</sup>
Reflex® 750mL/ha (IBS) f/b Diuron 623g/ha (PSPE)	89 <sup>fghi</sup>	83 <sup>bcde</sup>
Terrain® 120g/ha (IBS) f/b Diuron 623g/ha (PSPE)	71 <sup>bcde</sup>	62 <sup>b</sup>
Terrain® 120g/ha (IBS) f/b Diuron 623g/ha (PSPE) f/b Intercept® 500mL/ha (POST)	96 <sup>i</sup>	91 <sup>defg</sup>
Weeds/plot in unsprayed control	52	22

**Table 7:** Efficacy of herbicides on common sowthistle and medic plant number on sandy acidic soil at Bute, 2022 (herbicide tolerance trial).

<b>Herbicide treatment (commercial product rate)</b>	<b>Common sowthistle control (%)</b>	<b>Medic control (%)</b>
Unsprayed control	0 <sup>a</sup>	0 <sup>a</sup>
Diuron 623g/ha (IBS)	74 <sup>cde</sup>	21 <sup>ab</sup>
Reflex® 500mL/ha (IBS)	38 <sup>ab</sup>	74 <sup>bcde</sup>
Reflex® 750mL/ha (IBS)	62 <sup>bcd</sup>	58 <sup>bcde</sup>
Reflex® 1000mL/ha (IBS)	77 <sup>def</sup>	63 <sup>bcde</sup>
Terrain® 120g/ha (IBS)	82 <sup>defg</sup>	53 <sup>abcd</sup>
Reflex® 500mL/ha (IBS) + Diuron 623g/ha (IBS)	74 <sup>cde</sup>	84 <sup>cdef</sup>
Reflex® 500mL/ha (IBS) f/b Intercept® 500mL/ha (POST)	85 <sup>defg</sup>	95 <sup>ef</sup>
Reflex® 500mL/ha (IBS) f/b diflufenican 150mL/ha (POST)	44 <sup>abc</sup>	53 <sup>abc</sup>
Reflex® 500mL/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	95 <sup>ij</sup>	89 <sup>def</sup>
Reflex® 500mL/ha (IBS) f/b Diuron 623g/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	94 <sup>hij</sup>	95 <sup>ef</sup>
Reflex® 500mL/ha (IBS) + Diuron 623g/ha (IBS) f/b diflufenican 150mL/ha (POST)	80 <sup>defg</sup>	79 <sup>cde</sup>
Reflex® 500mL/ha (IBS) + Diuron 623g/ha (IBS) f/b Intercept® 500mL/ha (POST)	91 <sup>fghi</sup>	95 <sup>ef</sup>
Reflex® 1000mL/ha (IBS) + Diuron 623g/ha (IBS)	89 <sup>fghi</sup>	74 <sup>bcde</sup>
Reflex® 1000mL/ha (IBS) f/b Intercept® 500mL/ha (POST)	95 <sup>hij</sup>	100 <sup>f</sup>
Reflex® 1000mL/ha (IBS) f/b diflufenican 150mL/ha (POST)	86 <sup>efgh</sup>	53 <sup>abc</sup>
Reflex® 1000mL/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	97 <sup>ij</sup>	89 <sup>def</sup>

Reflex® 1000mL/ha (IBS) + Diuron 623g/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500 mL/ha (POST)	95 <sup>hij</sup>	100 <sup>f</sup>
Reflex® 1000mL/ha (IBS) + Diuron 623g/ha (IBS) f/b diflufenican 150mL/ha (POST)	91 <sup>fghi</sup>	74 <sup>cdef</sup>
Reflex® 1000mL/ha (IBS) f/b diflufenican 150mL/ha (POST) f/b Intercept® 500mL/ha (POST)	97 <sup>ij</sup>	100 <sup>f</sup>
Reflex® 750mL/ha (IBS) + Diuron 623g/ha (IBS)	91 <sup>ghi</sup>	42 <sup>abc</sup>
Reflex® 500mL/ha + Diuron 312g/ha (IBS)	71 <sup>cde</sup>	47 <sup>abc</sup>
Terrain® 120g/ha (IBS) + Diuron 623g/ha (IBS)	91 <sup>fghi</sup>	79 <sup>cdef</sup>
Terrain® 120g/ha (IBS) + Diuron 623g/ha (IBS) f/b Intercept® 500mL/ha (POST)	97 <sup>ij</sup>	100 <sup>f</sup>
Weeds/plot in unsprayed control	22	6.3