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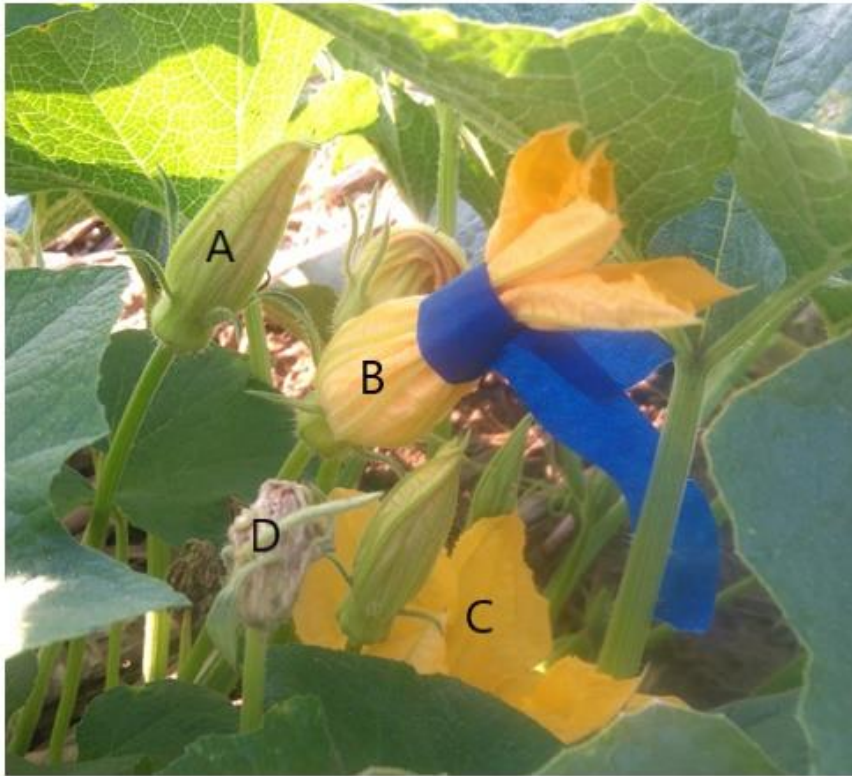


Figure S1. Acorn squash flowers showing the taping method to prevent bees from entering flowers and accessing pollen supplies. A = new bud that will open the next day—blue tape is applied at this stage, B = taped flower that is prevented from opening, C = opened flower, D = previous day's wilted flower.

Table S1. Pollen count per staminate acorn squash flower. Synandria were collected on 3 farms (10 synandria per farm) in Peterborough County, Ontario, Canada on August 10, 2022.

Farm	Synandrium #	Pollen count per staminate flower
BH	1	11840
BH	2	9360
BH	3	10960
BH	4	27600
BH	5	27280
BH	6	22160
BH	7	21440
BH	8	23840
BH	9	21280
BH	10	22160
CG	11	20320
CG	12	11600
CG	13	24480
CG	14	9920
CG	15	27680
CG	16	11920
CG	17	8720
CG	18	12080
CG	19	11200
CG	20	10640
IR	21	10320
IR	22	16320
IR	23	21040
IR	24	15040
IR	25	18160
IR	26	19120
IR	27	3760
IR	28	11360
IR	29	19360
IR	30	7120

Table S2. Counts of pollen waste collected from staminate acorn squash flowers (*Cucurbita pepo*, var Table Star) on August 17 and 23, 2017, in 3 mesh-covered enclosures in Peterborough County, Ontario, Canada. Pollen were collected after female hoary squash bees had foraged on them for the full daily foraging period (0600 to 1200).

Flower #	Waste Pollen Count	Date (2017)
1	2220	August 17
2	1140	August 17
3	1860	August 17
4	120	August 17
5	600	August 17
6	3240	August 17
7	3120	August 17
8	1260	August 17
9	120	August 17
10	960	August 17
11	1440	August 17
12	1380	August 17
13	3720	August 17
14	240	August 17
15	0	August 17
16	1980	August 23
17	2280	August 23
18	2640	August 23
19	5040	August 23
20	3240	August 23
21	5160	August 23
22	1620	August 23
23	4020	August 23
24	4260	August 23
25	4440	August 23
26	1500	August 23
27	1920	August 23
28	1140	August 23
29	1980	August 23
30	1440	August 23

Table S3. Pollen counts from female hoary squash bees returning to their nests with a pollen load. Bees collected from a large nesting aggregation on a farm in Wellington County, Ontario on August 5, 2017.

Bee #	Pollen count	Bee number	Pollen count	Bee number	Pollen count	Bee number	Pollen count	Bee number	Pollen count
1	2400	21	5720	41	10600	61	1080	81	10400
2	200	22	240	42	3160	62	560	82	688
3	240	23	120	43	120	63	1200	83	3160
4	120	24	4080	44	1800	64	2640	84	7680
5	800	25	4520	45	1600	65	240	85	1120
6	400	26	600	46	6480	66	1320	86	4040
7	440	27	240	47	5600	67	7560	87	2840
8	4760	28	360	48	320	68	160		
9	40	29	200	49	12280	69	3680		
10	2400	30	80	50	6160	70	960		
11	1200	31	840	51	6760	71	2480		
12	200	32	240	52	3000	72	280		
13	40	33	14520	53	2280	73	1360		
14	3360	34	8080	54	760	74	4000		
15	440	35	1360	55	5560	75	4440		
16	440	36	360	56	1320	76	3560		
17	120	37	280	57	12160	77	2880		
18	1360	38	600	58	4520	78	6800		
19	680	39	10080	59	1480	79	3360		
20	8920	40	13560	60	2640	80	3195		

Table S4. Live weight of female hoary squash bees captured on *Cucurbita* crop flowers in southern Ontario in 2017. Data are ordered by mass from lowest to highest.

ID	Bee Mass (mg)	ID	Bee Mass (mg)	ID	Bee Mass (mg)
1	80.3	31	105.7	61	121.0
2	85.0	32	106.0	62	121.8
3	85.8	33	106.3	63	122.0
4	86.0	34	107.0	64	123.0
5	88.8	35	107.7	65	123.0
6	93.0	36	108.0	66	123.4
7	93.1	37	109.0	67	124.0
8	93.4	38	109.0	68	125.0
9	94.0	39	110.0	69	126.0
10	94.4	40	110.1	70	126.0
11	95.0	41	110.4	71	126.4
12	95.4	42	110.5	72	128.5
13	95.7	43	112.0	73	134.0
14	96.9	44	113.0	74	134.0
15	97.0	45	114.0	75	135.0
16	97.8	46	115.0	76	140.0
17	98.1	47	115.0	77	146.0
18	98.6	48	116.3	78	147.0
19	98.7	49	116.4	79	158.0
20	98.8	50	118.0	80	165.0
21	99.6	51	118.0		
22	101.0	52	118.0		
23	101.0	53	118.0		
24	101.0	54	118.2		
25	101.8	55	119.0		
26	102.0	56	119.0		
27	102.3	57	119.0		
28	103.0	58	119.0		
29	103.3	59	119.2		
30	103.0	60	120.0		

Table S5. Amount of pollen in fully provisioned hoary squash bee subterranean nest cells excavated from a nesting aggregation on a farm in Peterborough County, Ontario, Canada, 2019. The sex of the egg in the nest cell is unknown.

Nest Cell #	Number of Pollen Grains
1	22,000
2	23,800
3	38,300
4	43,600
5	50,250
6	55,100
7	56,350
8	66,450
9	70,350
10	88,400
11	89,650
12	95,000
13	116,100