## ISU Monarch Data Summary for NCIG

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Table 1 and 2 provide mean count of nectar plant species averaged across all data collection events. Values in table represent the specific counting unit for each species, not necessarily a whole plant. Table 4 and 5 provide nectar plant species density (per 100m2) averaged across all data collection events.

Table 1: 2016 nectar plant species: mean count across all surveys

Nectar Plant Species t	tallla t	all2a ta	ppla ta	tall2a tappla tarm1b tarm2a	arm2a t	bcrla t	ocr2a t	berla t	ber3a t	bydla t	byd2a	tcrala 1	tcrela t	tdav1a	tdun2a	tdun3a	tfisla	tgrola	tgro2a
alfalfa			1	1	7.7	1	1	1	1	379.0	128.7	1		1	1	1	1	272.0	20.3
birdsfoot trefoil	ı	ı	ı	18.3	1	ı	1	1	ı	ı	1	1	0.6	1	ı	ı	1	ı	1
black eyed susan	1	ı	1	1	•	1	1	1	1	1	1	1	•	1	1	1	1	1	1
black medic	1	8.3	1	1	1	1	1	1	1	1	34.0	1	1	1	1	1	1	1	1
bladder campion	1.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
blue vervain	1	ı	1	1	1	ı	ı	ı	1	ı	1	1	1	1	1	ı	ı	ı	1
blue wild indigo	ı	ı	ı	ı	ı	ı	ı	1	ı	ı	1	1	1	1	1	ı	ı	ı	1
brown eyed susan	1	ı	ı	ı	1	ı	ı	ı	ı	ı	1	1	1	1	1	1	ı	1	1
canada goldenrod	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
canada thistle	1	2.0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	1	1	93.3	45.3
carolina horsenettle	•	1	1	ı	1	1	1	7.3	2.3	1	1	1	2.7	1	33.3	9.7	1	1	11.7
chicory	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
common cinquefoil	1	1	ı	ı	1	1	1	1	3.0	ı	1	8.7	1	1	1	ı	ı	1	1
common dandelion	1.3	1.0	ı	ı	1	1	1	1	0.7	1	1.7	1.3	1	1	1	1	1	1	1
common evening primrose	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
common mallow	1	2.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
common milkweed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.3	1.0
common mullein	1.7	2.7	1	1	1	1	1	1	1	1	1	1	1	1	0.3	1	1	1	1
common yarrow	1	ı	ı	1	1	1	1	1	1	1	ı	1	1	1	1	1	1	1	1
compass plant	1.0	3.3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
eastern daisy fleabane	ı	ı	ı	1	1	1	1	0.3	ı	ı	1	3.3	2.3	1	11.7	ı	1	ı	1
flowering spurge	1	ı	ı	3.0	1	ı	ı	ı	ı	1	ı	1	1	1	1	1	1	1	1
golden alexanders	1	ı	ı	1	1	1	1	3.3	1	1	1	1	1	1	1	1	1	1	1
hoary vervain	1	1	ı	ı	ı	1	ı	1	ı	ı	ı	1	1	ı	1	ı	ı	1	1
lanceleaf fogfruit	ı	ı	ı	1	1	1	1	1	ı	ı	1	1	1	1	1	16.7	1	ı	1
ý.	231.7	ı	ı	ı	ı	ı	ı	0.3	ı	1	1	1	ı	1	1	1	1	26.0	10.7
musk thistle	1	ı	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ox eye sunflower	1	ı	ı	ı	1	1	ı	ı	ı	1	1	1	•	1	4.0	1	1	1	1
plantain	1	ı	ı	ı	1	1	ı	ı	ı	1	1	1	•	1	1	1	1	1	1
prickly lettuce	1	ı	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
purple prairie clover	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
queen annes lace	1	1	1	104.0	1	1	1	1	1	1	1	1	85.0	1	1	1	1	1	1
red clover	4.0	ı	16.7	2.7	377.0	ı	ı	0.3	124.0	58.0	70.3	161.0	129.0	1	1	1	ı	82.3	415.7
sawtooth sunflower	1	ı	ı	ı	1	ı	ı	1	ı	ı	1	1	1	1	1	1	ı	1	1
smartweed	1.3	1.7	ı	1	1	1	ı	11.3	1	1	1	1	1	1	1	1	1	1	1
stinging nettle	1	ı	ı	ı	1	ı	ı	ı	ı	1	ı	1	1	1	1	2.3	1	1	1
		ı	ı	ı	1	1	ı	0.7	ı	ı	ı	ı	1	1	1	1	1	1	1
white clover	388.7	473.3	3.3	1	8.0	42.0	1	1	16.0	644.7	757.0	134.3	13.7	1	2.0	1	1	1	1
white sweet clover	1	1	1	1	1	1	1	1	1	3.3	1	1.7	1	1	1	1	1	1	1
whitestar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
whorled milkweed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ı	1	1	1
wild bergamot	1	ı	ı	1	1	ı	ı	1	1	ı	1	1	1	1	1	ı	ı	ı	1
wild mustard	1	1	1	1	ı	1	1	ı	11.0	1	1	1	1	1	1	ı	1	ı	1
wild parsnip	1	1	1	1	ı	1	1	ı	1	0.3	1	1	1	0.3	1	ı	1	ı	1
yellow sweet clover	1	1	1	1	1	1	1	1	1	1	1.0	2.3	1	1	1	1	'	1	1

	altalta	ı		-	1	16.3	1.01	'	'		113.3	54.0	7.3		ľ	'	ľ	•	7.07
	bedstraw	1	1	•	1	1	1	1	1	1	1	1	1	1	1	1	•	1	,
	birdsfoot trefoil	1	ı	1	10.7	1	1	1	1	1	ı	1	1	1	1	1	ı	1	ı
	black eved susan	1.0	ı	10.7	. 1	0.7	1	ı	'	,	4.7	0.3	0.7	2.3	1.7	10	ı	1	10
	black medic	1.7	ı	1.0	1	. '	102.0	1.3	0.3	0.3	52.3	376.7	. '	i '	11.0	298.0	164.0	1	) 1
	bladder campion	34.0	ı	1	1	ı	1	1	1	) I	1	. 1	İ	1	, 1	1	) I	1	1
	blue vervain	1	ı	1.0	1	0.3	1	ı	1	ı	1	ı	ı	ı	1	ı	1	ı	1
	brown eyed susan	1	0.3		0.7	1	1	1	1	1	1	1	1.0	1	1	0.7	1.7	1	1
	buffalobur nightshade	ı	1.3	1	1	ı	1	1	1	ı	ı	1	ı	1	1	1	ı	1	ı
	canada thistle	ı	ı	ı	ı	ı	1	1	ı	ı	ı	1	ı	ı	1.3	1	ı	1	ı
	chicory	•	1	•	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	clasping venus looking glass	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1
	common cinquefoil	1	ı	1	1	1	1	1	1		1	1	9.7	1	1	1	1	1	1
	common dandelion	1	ı	3.0	0.3	11.0	5.7	1.7	ı	0.9	27.3	55.0	1	1	1	2.0	ı	1	1.0
	common evening primrose	1	ı	1	1	1	1	1	1		ı	1	11.7	1	1	1	ı	1	1
	common mallow	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	common milkweed	1	ı	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1
	common mullein	ı	ı	ı	1	ı	1	1	1		ı	1	ı	ı	ı	0.3	0.3	1	ı
	common purslane	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1
	common yarrow	1	ı	1	1	1	1	1	1		ı	1	1	1	1	1	1	1	1
	compass plant	1	1	0.3	1	ı	1	1	1	İ	ı	1	İ	1	1	1	1.3	1	1
	culvers root	ı	ı	ı	ı	1	1	1	1		ı	1	ı	ı	ı	ı	ı	ı	ı
	eastern black nightshade	ı	ı	ı	ı	2.0	ı	1	1		ı	1	1	ı	1	2.9	1	ı	ı
	eastern daisy fleabane	1	ı	1	1	1	1	1	11.7		ı	1	24.3	49.7	1	0.9	73.7	1	ı
	field pennycress	•	ı	1	1	1	1	1	1		1	1	1	1	1	1	1	1	20.0
	foxglove beardtongue	ı	ı	ı	ı	1	1	1	1	ı	ı	1	ı	ı	ı	ı	ı	ı	ı
	groundcherry	1	ı	ı	1	ı	1	1	1	ı	ı	1	ı	1	ı	ı	0.3	1	ı
;	hawkweed	1	ı	1	1	1	1	1	1	1	ı	1	1	1	1	1	1	1	1
3	hoary alyssum	ı	ı	ı	1	1	1	1	1	ı	1 1	ı	ı	ı	ı	ı	ı	1	ı
	hoary vervain	1	ı	1	1	1	1	1	1	1	0.3	1	1	1 (	1	1	1	1	ı
	ironweed	1	ı	1 (	1	1	1	1	1	1	1	1	1	1.0	ı	1	1	ı	1
	marestail	1 6	ı	20.3	ı	1	1	1	1	İ	ļ	ı	İ	1	ı	ı	ı	ı	ı
	morning glory	2.3	ı	ı	ı		ı	ı	ı	ı	ı	ı	ı	ı	ı	1 1	۱ (	ı	ı
	musk tillstie	ı	ı	ı	ı	7.0	1	ı	1	ı	ı	ı	ı	ı	ı	17.1	0.5	ı	٠ ٥
	ox eye sunnower		1		' (	٠ ،	י כ	' (			' α	- 1	10.3	1		' č	· 6		c. o
	partinge pea nineannle weed	13.3	1 1	7.7	1.0	0.4	0.0	7. 1.	' '	' '	0.0	7. 1	c. '				0.0		
	pricappic wear	0.01	ı	1	1	1	1	1	65	ı	1	ı	ı	1	ı	; '	: '	ı	1
	prickly sowthistle	ı	ı	ı	ı	ı	1	1	) !	1	4.0	5.0	1	ı	1	ı	1	1	ı
	prostrate knotweed	1	3.3	1	1	ı	1	1	ı	1	1	1	1	ı	1	1	1	1	1
		12000.0	ı	1	1	1	70.0	1	ı	1	ı	1	1.7	ı	1	1	1	ı	1
	purple prairie clover	ı	ı	ı	1	1	1	ı	1	ı	ı	ı	ı		ı	1	1	ı	ı
	queen annes lace	1 1	ı	1 1	269.3	1 1	ı	1	1 1	1 0	1 0	1 '	' 1	96.7	ı	2.0	တ်လ	1	
	red clover	2.7	ı	7.601	29.3	129.7	1	1	1.10	350.3	0.80	14.7	181.7	12.3	1	0.0 8.0	y.	ı	e j.one
	rough avens	ı	ı	ı	۱ ،	' 0	1	ı	1	ı	200		ı	ı	1	1	ı	ı	1 1
	snepnerus purse shortstalk chickweed					o: .					- 177	41.0				, ,	<del>بر</del> د در		- '
	smartweed	1.3	14.3	84.0	1.3	33	17.7	39.7	218.3	47.7	1	1	38.0	7.0		2.3	11.3	412.7	5.0
	velvetleaf		1	0.7		1		. 1	1	. 1	ı	ı	1	1	1	1			1
	venice mallow	1	ı	1	1	1	1	1	1	1	ı	1	1	ı	ı	ı	ı	ı	1
	white clover	1	ı	249.0	2.3	87.3	33.7	1	ı	33.7	450.3	402.7	196.7	0.7	1	74.7	605.7	1	1.7
	white sweet clover	ı	2.7	ı	ı	ı	1	1	1	ı	ı	1	ı	ı	1	1	ı	1	ı
	whorled milkweed	ı	ı	1	1	ı	1	1	1	ı	ı	ı	ı	1	1	1	ı	1	ı
	wild bergamot	ı	ı	1	1	1	1	1	1	İ	1	ı	İ	1	ı	ı	1	1	1
	wild mustard	1	ı	ı	1	ı	1	1	1	1	ı	7.3	1	ı	1	1	1	1	18.3
	wild parsnip	'	'	'	'	'	'	'	'	'	'	'	'	'	1	1	1	1	1

canada thistle	1	11.3	8.3		3.0	•	•			1	3.0	'	1	19.3		1		9.0	1.3
carolina horsenettle	1	1	1	1	1	1	1	2.7	1.0	1	1	1	1	1	6.3	5.3	1	1	2.3
catnip	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16.0	1	1	20.0	1
chicory	1	ı	ı	1	1	1	1	1	ı	1	1	1	1	1	1	1	1	1	1
common cinquefoil	126.7	21.0	3.0	0.3	1	23.0	1	0.3	1	•	1	114.7	0.7	1	1	0.7	1	1	1
common dandelion	0.7	0.3	1	1	1	5.0	2.3	1	0.3	1.0	1.3	1	1	1	0.3	0.7	1	1	1
common evening primrose	1	1	1	1	1	2.7	1	1	1.0	1	1	1	•	4.0	1	1	1	1	1
common mullein	1	1	1	1	1	1	1	0.3	1	1	0.3	1	1	1	18.0	19.3	ı	1	1
common selfheal	1	ı	1	ı	1	1	1	ı	1	1	1	ı	1	1	1	1	1	1	1
common sneezeweed	1	ı	ı	ı	ı	ı	ı	ı	1	1	1	1	1	ı	1	1	ı	1	ı
common yarrow	1	ı	1	1	1	1	1	1	1	1	1	1	3.3	1	1	1	ı	1	1
compass plant	1	ı	1	2.0	1	1	ı	1	1	1	1	ı	1	1	1	1	1	1	1
cup plant	1	ı	1	1	1	1	65.0	1	1	1	1	1	1	1	1	1	1	1	1
deptford pink	1	1	1	1	1	1	1	1	1	1	1	1	80.3	1	1	1	1	1	'
eastern daisy fleabane	1	1	1	195.3	1	1	1	93.3	197.7	1	1	24.0	928.3	1	51.7	301.7	ı	ı	1
field pennycress	1	1	1	1	1	13.7	101.0	1	1	1	1	1	1	1	4.3	1	1	1	1
field thistle	1	1	1	1	1	1	1	1	1	1	'	1	1	1	1	1	1	1	1
flowering spurge	1	1	1	3.3	1	•	1	1	1	•	'	1	•	1	1	•	1	'	'
foxglove beardtongue	1	ı	1	5.0	0.3	1	ı	1	0.7	5.7	8.7	1	•	23.3	1		1	1	1
golden alexanders	1	ı	1	0.3	1.7	1	ı	1	1	0.3	1	ı	1	6.7	1	1	ı	0.7	ı
great blue lobelia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	'
groundcherry	1	1	1	ı	ı	1	ı	1	1	1	1	1	1	3.0	1	1	1		ı
hoary alyssum	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	'	1	1	1	'
hoary vervain	0.3	ı	4.0	ı	1	1.0	0.3	1	1	9.3	1.0	1.7	1	1	10.0	127.7	ı	10.0	ı
ironweed	1	1	0.3	1	1	1	1.3	1	1	1	1	1	1	1	1	1.3	1	1	'
lanceleaf fogfruit	•	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4.0	1	1	1
leadplant	1	1	1	1	1	1	1	1	1	1	1	1	1	'	1	'	1	'	1
lesser burdock	1	1	1	1	1	1	1	1	1	1	'	1	1	1	'	•	1	'	0.7
4 marestail	1	1	13.7	1	30.7	1.7	0.7	1	1	1	1	255.3	6.7	0.7	1	1	ı	ı	1
morning glory	0.7	ı	1	ı	ı	1.3	ı	4.0	2.0	1	1	ı	1	ı	1	1	ı	1.7	1.0
musk thistle	1.7	11.0	1	1.0	ı	ı	1	ı	1	1	1	1	1	1	41.3	17.7	ı	1	ı
new england aster	1	1.7	1	1	ı	1	1	1	1	1	1	1	1	1	1	1	ı	1	1
nodding stickseed	1	1	1	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ox eye daisy	1	0.7	1	1	1	1	1	ı	1	1	1	1	6.7	1	1	1	1	1	1
ox eye sunflower	2.0	1.0	62.7	0.9	65.7	71.0	4.3	7.0	4.3	236.0	144.0	48.0	15.3	47.3	83.0	48.7	1	76.7	12.0
pale purple coneflower	1	ı	1	1	1	ı	1.3	1	1	0.7	0.7	1	1	1	1	1	1	1	1
panicledleaf tick trefoil	1	1	1	1	1	1	1	1	1	ı	1	1	1	1	' '	1	ı	1	1
partridge pea	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	I	I.3	1	I	1	ı
pineappie weed nlantain	' '				17.0	1								1					1
promodu prairie blazing star	į '		' '	' '	0:1	' '		' '		' '	' '	' '	' '	' '	' '	1.0	' '	' '	' '
pranice cinquefoil	1	1	1	1	1	1	0.7	1	1	1	0.3	1	1	1	1	1.3	1	'	1
prickly lettuce	0.3	1	1	1	ı	6.7	, 1	1	1	1	) 1	3.3	118.0	1	17.3	3.3	1	11.7	1
prickly sowthistle	1	1.0	1	ı	ı	ı	1	1	1	1	1	1	1	ı	1	1	ı	1	1
prostrate vervain	•	1	1	1	1	0.7	1	1	1	1	1	1	1	1	1	1	1	1	1
purple prairie clover	1	1	1	1	ı	1	1	1	1	1	1	0.3	1	1	1	1	1	1	1
queen annes lace	ı	ı	ı	350.3	ı	ı	1	ı	1	1	1	1	943.3	ı	6.3	36.7	ı	ı	0.7
red clover	68.3	28.3	290.7	1043.0	3244.0	176.3	1	197.7	889.3	206.3	111.3	661.3	1056.3	1	54.0	103.0	1	783.0	3081.7
rough avens	1	ı	1	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1
rough cinquefoil	1	1	1	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1
shepherds purse	ı	1	1	1	1	4.3	68.3	ı	1	1	1	1	1	ı	1	1	1	1	1
smartweed	58.3	9.3	18.3	1	1	1	1	170.0	20.0	1	1	1	1	16.7	2.3	10.0	1	190.0	29.7
stiff goldenrod	1	ı	1	1	ı	1	ı	1 (	1	1	1	1	1	1	1 (	1 (	ı	1	1
stinging nettle	1	ı	1	1	1 (	1	1	2.0	1	1	1 ]	1	1	1	23.3	2.3	ı	' 1	1
swamp milkweed	ı	1	1	1	8.0	ı	1	ı	1	ı	0.7	1 (	1	1	1	1	ı	1.7	1
tall boneset	•	'	<b>'</b>	'	'	'	'	'	'	'	'	1.0	'		'	'	1	-	1

Here are some heatmaps for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence.

Table 4: 2016 Nectar plant species density: average density (count  $/\ \mathrm{m2})$  across all rounds

Nectar Plant Species t	tallla t	all2a ta	ppla ta	tall2a tapp1a tarm1b tarm2a	arm2a t	bcrla t	bcr2a t	berla 1	tber3a t	bydla t	tbyd2a 1	tcrala	tcrela t	tdavla 1	tdun2a	tdun3a	tfisla	tgrola	tgro2a
alfalfa	1		1	1	0.08	1	ı	1	1	3.79	1.29	1	1	1	1	1	1	4.53	0.34
birdsfoot trefoil	ı	1	ı	0.31	1	1	1	ı	ı	ı	1	1	0.10	1	1	1	ı	1	1
black eyed susan	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
black medic	1	0.17	1	1	1	1	1	1	1	1	0.34	1	1	1	1	1	1	1	1
bladder campion	0.02	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
blue vervain	1	ı	ı	1	1	ı	1	1	1	1	1	1	ı	1	1	1	ı	1	1
blue wild indigo	ı	ı	ı	1	1	ı	1	ı	1	ı	1	1	1	ı	1	1	ı	ı	1
brown eyed susan	1	ı	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	ı	1	1
canada goldenrod	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
canada thistle	1	0.04	ı	1	1	1	1	1	1	1	1	1	1	1	0.01	•	1	1.56	0.76
carolina horsenettle	1	1	ı	1	1	1	•	0.15	0.05	ı	1	1	0.03	1	0.33	0.10	1	ı	0.19
chicory	1	ı	ı	1	1	1	1	1	1	ı	1	1	1	1	1	1	1	1	1
common cinquefoil	1	1	ı	1	1	1	1	ı	90.0	ı	ı	0.12	1	1	1	1	ı	ı	1
common dandelion	0.03	0.02	ı	1	1	1	1	1	0.01	1	0.02	0.02	1	1	1	•	1	1	1
common evening primrose	•	1	1	1	1	1	•	•	1	1	1	1	1	1	•	•	1	1	1
common mallow	1	0.04	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
common milkweed	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.01	0.02
common mullein	0.03	0.05	1	1	1	1	1	1	1	1	1	1	1	1	0.00	1	1	1	1
common yarrow	•	1	1	1	1	1	1	•	1	1	1	1	1	1	•	•	1	1	1
compass plant	0.02	0.07	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ı	1	1
eastern daisy fleabane	ı	ı	1	ı	1	ı	1	0.01	ı	ı	1	0.05	0.02	1	0.12	1	ı	1	1
flowering spurge	1	ı	ı	0.05	1	1	1	1	1	ı	1	ı	1	1	1	1	ı	1	1
golden alexanders	1	ı	ı	1	1	1	1	0.02	1	1	1	1	1	1	1	1	1	1	1
hoary vervain	1	ı	ı	ı	1	ı	ı	1	ı	ı	ı	ı	1	1	1	ı	ı	1	1
lanceleaf fogfruit	ı	ı	1	ı	1	ı	1	1	ı	ı	1	1	1	1	1	0.17	ı	1	1
morning glory	4.63	ı	ı	1	1	ı	1	0.01	1	ı	ı	1	1	1	1	1	ı	0.43	0.18
musk thistle	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ox eye sunflower	1	ı	ı	1	1	ı	1	1	1	ı	1	1	1	1	0.04	•	1	1	1
plantain	1	ı	ı	ı	1	ı	1	1	ı	1	1	1	1	1	1	1	1	1	1
prickly lettuce	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
purple prairie clover	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
queen annes lace	1	ı	ı	1.73	1	ı	1	1	1	ı	ı	1	98.0	1	1	1	ı	1	1
red clover	0.08	ı	0.33	0.04	3.77	1	1	0.01	2.48	0.58	0.70	2.30	1.38	1	1	1	ı	1.37	6.93
sawtooth sunflower	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ı	1	1
smartweed	0.03	0.03	1	1	1	1	1	0.23	1	1	1	1	1	1	1	1	ı	1	1
stinging nettle	1	ı	ı	1	1	1	1	1	1	ı	1	1	1	1	1	0.02	1	1	1
velvetleaf	1	ı	ı	ı	1	ı	ı	0.01	ı	ı	ı	ı	1	1	1	ı	ı	1	1
white clover	7.77	9.47	0.02	1	0.08	0.84	1	1	0.32	6.45	7.57	1.92	0.18	1	0.02	1	1	ı	1
white sweet clover	1	1	1	1	1	1	1	1	1	0.03	1	0.02	1	1	1	1	1	1	1
whitestar	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
whorled milkweed	1	1	1	1	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1
wild bergamot	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	ı	1	1
wild mustard	1	1	1	1	1	1	1	ı	0.22	1	1	1	1	ı	1	1	1	1	1
wild parsnip	1	1	ı	1	1	1	1	ı	1	0.00	1	1	1	0.01	1	1	1	1	1
yellow sweet clover	ı	1	1	1	1	1	1	1	1	1	0.01	0.03	1	1	1	1	1	1	1

altalta		ľ				01.0	0.33		ı	ı	1.13	0.54	0.10	-		-			0.34	
bedstraw	•			1	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	1	ı	ı	•	
birdsfoot trefoil					0.18	ı	1	1	1	ı	1	1	1	1	1	1	ı	1	1	
black eyed susan	0.02	•	0.21	1	1	0.01	ı	ı	ı	ı	0.05	0.00	0.01	0.02	0.03	0.01	ı	ı	0.02	0.0
black medic	0.03	·	0.02	2	1	ı	2.04	0.03	0.01	0.01	0.52	3.77	1	1	0.22	2.98	1.64	•	ı	
bladder campion	89.0	~			,	1	,	1	1	1	1	1	1	1	1	1	1	1	1	
blue vervain			0.02	2	1	0.00	ı	1	ı	1	1	ı	1	1	1	1	1	1	1	
brown eyed susan		. 0.01		- 0.	0.01	ı	ı	1	ı	1	1	ı	0.01	1	1	0.01	0.02	ı	1	
buffalobur nightshade		0.03			ı	ı	1	ı	ı	ı	ı	1	1	1	1	1	ı	ı	ı	
canada thistle					1	ı	1	,	ı	ı	1	1	1	ı	0.03	1	ı	1	1	0.0
chicory					1	ı	ı	ı	1	1	1	1	1	1	1	1	1	1	•	
clasping venus looking glass	glass				,	,	,	•	1	1	1	1	1	1	1	•	1	1	1	
common cinquefoil					1	ı	,	•	ı	0.01	1	ı	0.14	1	1	•	1	ı	1	
common dandelion			0.00		0.01	0.11	0.11	0.03	ı	0.12	0.27	0.55	1	ı	1	0.02	1	•	0.03	0.0
common evening primrose	rose				ı	1	1	1	1	ı	ı	1	0.17	1	1	1	ı	1	•	
common mallow					1	ı	1	1	ı	ı	1	ı	ı	1	1	1	1	1	1	
common milkweed					1	1	ı	1	1	ı	1	1	ı	1	1	1	ı	1	•	
common mullein					1	ı	1	ı	ı	ı	1	ı	1	ı	ı	0.00	0.00	1	ı	
common purslane					,	,	,	,	1	1	1	1	1	1	•	1	) I		1	
common varrow		'			ı	ı	1	ı	1	ı	1	1	1	ı	ı	,	ı	ı	1	
common yearow			0.01	_													0.01			
compass plant			0.0	1	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı		0.01	ı	1	
CUIVETS FOOT				ı	i	١ ;	i	ı	ı	ı	İ	ı	ı	ı	ı	1 1	ı	ı	ı	
eastern black nightsnade	ae				ı	0.02			۱ و	1 0	ı	1	1 h	1 C	1	0.07	1	ı	ı	
eastern daisy fleabane					ı	ı	1	1	0.23	0.26	ı	1	0.35	0.50	ı	0.06	0.74	ı	1 (	
field pennycress					1	ı	ı	1	ı	ı	1	1	1	1	1	1	1	1	0.33	<u>.</u>
foxglove beardtongue		'			1	ı	ı	ı	ı	ı	ı	ı	ı	1	1	1	ı	ı	1	0.0
groundcherry				1	1	ı	1	1	1	ı	1	1	1	ı	1	1	0.00	1	ı	
hawkweed					1	ı	ı	ı	ı	ı	1	ı	ı	1	1	•	1	ı	1	
4 hoary alyssum					1	ı	1	1	ı	ı	1	ı	ı	1	1	1	ı	1	1	
hoary vervain		'		,	1	1	1	1	1	1	0.00	1	1	1	1	1	1	1	1	
ironweed					,	,	,	,	ı	1	1	ı	ı	0.01	•	٠	1	,	1	
marestail			0.41	1	1	ı	,	,	ı	ı	1	ı	1	1	1	1	ı	1	•	
morning glory	0.05				,	ı	,	,	1	ı	1	1	1	ı	1	1	,	1	1	
musk thistle		'			1	0.02	,	,	,	ı	ı	,	ı	,	,	0.13	0.00	1	1	
ox eve eve						<b>!</b> '	,						•	,		)		,	0 01	0
partridge pea	·		0.02		0.02	0.03	0.10	0.08	ı	1	0.08	0.02	0.15	ı	1	0.03	0.00	,		5
pineapple weed	0.27	,							1	1				1	•	0.03	0.01	,	1	
prairie cinquefoil					1	,	1	,	0.07	ı	1	ı	1	1	1	) 1	i 1		•	
prickly sowthistle	•				1	ı	,	,	1	1	0.04	0.02	1	1	1	1	1	1	1	
prostrate knotweed		. 0.07		,	,	ı	,	,	ı	ı	1	1	1	1	1	1	1	1	ı	
prostrate vervain	240.00	•		1	1	ı	1.40	ı	ı	ı	1	1	0.02	ı	ı	1	ı	ı	1	
purple prairie clover				,	1	ı	1	1	1	ı	1	1	1	ı	1	1	ı	1	1	
queen annes lace				- 4.		1	1	1	1	ı	1	1	1	0.97	1	0.02	0.08	1	1	
red clover	0.05	'	2.11		0.49	1.30	1	ı	1.35	7.13	89.0	0.15	2.60	0.12	1	0.08	0.09	ı	8.44	<u>∞</u>
rough avens				1		ı	ı	1	ı	ı	ı	ı	1	ı	1	1	ı	ı	1	
shepherds purse				- 0.	0.02	0.09	1	ı	ı	ı	0.23	0.41	1	1	1	1	ı	ı	0.04	0.5
shortstalk chickweed						1	1	1	1	1	ı	1	1	1	1	1	0.15	1	1	
smartweed	0.03	0.29			0.05	0.03	0.35	0.79	4.37	0.95	1	1	0.54	0.07	1	0.02	0.11 2	8.25	0.08	0.
velvetleaf			0.01	_	ı	ı	ı	ı	ı	ı	ı	1	ı	1	1	1	ı	ı	1	
venice mallow						1	ı	1	1	1	İ	1		1	1	1	ı	1	1	
white clover			4.98		0.04	0.87	29.0	ı	ı	0.67	4.50	4.03	2.81	0.01	1	0.75	90.9	ı	0.03	
white sweet clover		0.05		1	1	ı	1	1	1	ı	1	1	1	1	1	1	ı	1	1	
whorled milkweed				1	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	1	ı	ı	•	
wild bergamot				ı	ı	ı	ı	ı	ı	ı	ı	1	1	1	1	1	ı	ı	1	
wild mustard				ı	ı	ı	ı	ı	ı	ı	ı	0.02	ı	ı	ı	ı	ı	ı	0.31	0
wild parsnip				1	i	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	

senettle 0.11  quefoil 2.53 0.42 0.06 0.01 - 0.46 - 0.01  ming primrose 0.01 0.01 - 0.05 - 0.05  sexewed 0.01 0.01 - 0.05 - 0.05  mithem heal of the or of the	canada thistle		ı	0.23	0.17	ı	0.03	1		1	'	'	0.03	1	'	0.39	'		1	CT.U	0.02
commons ethicised 2.53 0.42 0.06 0.01 0.16 0.00 0.01 0.1 144 0.00 0.01 0.01 0.01 0	carolina horse	nettle	1	1	1	1	1	1	ı	0.11	0.02	1	ı	1	1	1	0.06	0.05	ı	1	0.04
division characteristics   2.33 6.42 0.06 0.01 0.04 0.05 0.01 0.01 0.01 0.01 0.01 0.01 0.01	catnip		1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.16	1	1	0.33	1
ocumuou citaçuelida 2.53 0.42 0.05 0.01 0.04 0.01 0.01 0.01 ocumuou citaçuelida 2.53 0.42 0.05 0.01 0.01 0.01 0.01 0.01 ocumuou citaçuelida 2.53 0.42 0.05 0.01 0.01 0.01 0.01 0.01 ocumuou asidificat common asid	chicory		1	1	1	1	ı	1	1	1	1	1	1	1	1	1	1	ı	1	1	1
ocummon statescarrend common common statescarrend common common statescarrend common common statescarrend common c	common cing	uefoil	2.53	0.42	0.06	0.01	•	0.46	ı	0.01	•	1	1	1.64	0.01	1	ı	0.01	1	1	
common averling printrose	common danc	lelion	0.01	0.01	1	1	1	0.10	0.05	1	0.01	0.01	0.01	1	1	1	0.00	0.01	1	1	1
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common streamweed common streamweed common streamweed common streamweed common streamweed common streamweed common streamweed common streamweed common streamweed common streamweed common streamweed common streamweet compares plant complement compares plant complement compares plant complement compares plant complement compares plant complement compares plant complement compares plant complement compares plant complement compares plant complement compares plant complement compares plant complement compares compa	common mull	ein	1	1	1	1	1	1	1	0.01	1	1	0.00	1	1	1	0.18	0.19	1	1	'
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common yarrow compass plant deptact pink caser disay fienbane caser disay fienbane 3.26 1.37 2.02 1.87 3.95 0.34 caser disay fienbane 0.00 0.00 0.27 2.02 1.87 3.95 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	common snee	zeweed	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
compass plant compass plant compass plant compass plant compass plant compass plant compass plant compass plant compass plant compass plant compass plant compass control plant control plant compass control plant control co	common yarre	МС	1	1	1	1	1	1	1	1	1	1	1	1	0.03	1	1	1	1	1	'
capploint control bink seator days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern days fleabane castern caster	compass plant	÷.	1	1	ı	0.03	1	1	ı	1	1	1	ı	ı	1	1	ı	1	ı	1	1
depford pairs field penugoses feedbare field penugoses field p	cup plant		1	1	ı	1	1	1	1.30	ı	1	1	ı	ı	1	1	1	1	1	1	1
gostern døky fleabane         3.26         -         -         1.87         3.95         -         0.04           field thelfer         0.06         0.07         2.02         -         0.01         0.06         0.09           field thistle         0.01         0.02         0.01         0.05         0.00         0.01         0.00           groat blue lobelin         0.01         0.02         0.01         0.02         0.01         0.00         0.01	deptford pink		1	1	1	1	1	1	1	1	1	1	1	1	08.0	1	1	1	1	1	'
field themycress	eastern daisy	fleabane	1	1	1	3.26	1	1	1	1.87	3.95	1	1	0.34	9.28	1	0.52	3.02	1	1	
field thistic foreign spurge	field pennycre	SSS	ı	1	1	1	1	0.27	2.02	1	1	1	ı	ı	1	ı	0.04	1	ı	1	1
flowering spurge         0.06         0.0	field thistle		1	1	1	'		. '	'	'	'	'	1	1	'	1		'	1	1	'
godglove beardrongue         0.08         0.00         - 0.01         0.06         0.09           groundcherty         - 0.01         0.02         - 0.01         0.02         - 0.00         - 0.00           groundcherty         - 0.01         0.08         - 0.01         - 0.02         - 0.01         - 0.00         - 0.01           howry abyssum         0.01         0.08         - 0.01         - 0.03         - 0.03         - 0.03         - 0.03         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.00         - 0.01         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01         - 0.00         - 0.01<	flowering spilt	rore	,	1	,	0.06	ı	1	,	'	١	,	1	1	1	1	'	'	,	1	'
golden alexanders golden alexanders golden alexanders golden alexanders golden alexanders golden alexanders golden alexanders golden alexanders groundederly groundederly groundederly groundederly groundederly groundederly groundederly groundederly groundederly groundederly groundederly groundederly groundederly golden gold	mada Surraman mede exclavoj	tes Itonome	١			80.0	000				0.01	0.06	000			0.47					
grant bine lobelian grant gr	golden alexan	ders				0.00	0.00					00.0	) ·			0.13			1	0.01	
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Incomeded   December	hoary alyssun	u	1 ,	ı	I (	1	ı	1 (	1 ,	ı	1	1 (	1 ,	1 (	1	ı	1 (	1 (	ı	1 J	1
innweed humowed burched burched fogfruit bedplant beach burched fogfruit bedplant burched burched fogfruit bedplant burchedk	hoary vervain		0.01	ı	0.08	1	1	0.02	0.01	1	•	0.00	0.01	0.02	1	1	0.10	1.28	ı	0.17	1
lancebart flogfruit	ironweed		1	1	0.01	1	1	1	0.03	1	1	1	1	1	1	•	1	0.01	1	1	1
leadplant leser burdock marestall morning glory 0.01	lanceleaf fogfi	uit	İ	1	1	1	i	1	1	1	1	1	1	1	1	1	1	0.04	1	1	1
lesser burdock marestail marestail morning glory musk thistle 0.03 0.22 - 0.02 - 0.03 0.04 - 0.8 morning glory morning stickseed ox eye daisy ox eye animower 0.01 0.02 1.25 0.10 0.66 1.42 0.09 0.14 0.09 2.36 1.44 0.69 palaticlage pea plan	leadplant		İ	1	1	1	i	1	1	1	1	1	1	1	1	1	1	1	1	1	1
marrestail         -         0.27         -         0.31         0.03         -         -         -         3.65           movining glory         0.01         -         -         0.03         -         0.03         -         0.04         -		¥	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.01
0.01			1	1	0.27	1	0.31	0.03	0.01	1	•	1	1	3.65	0.07	0.01	1	1	1	1	1
trefoil 0.03 0.22 - 0.02 - 0.02 - 0.03 0.14 0.09 2.36 1.44 0.09 1.00 0.01 0.01 0.02 0.15 0.10 0.06 1.42 0.09 0.14 0.09 2.36 1.44 0.09 1.00 0.00 0.00 0.10 0.00 0.10 0.00 0.10 0.00 0.14 0.09 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14	morning glory	_	0.01	1	1	1	1	0.03	1	0.08	0.04	1	1	1	1	1	1	1	1	0.03	0.02
rr - 0.03	musk thistle		0.03	0.22	1	0.02	1	1	1	1	•	•	1	1	1	1	0.41	0.18	1	1	1
1	new england	aster	1	0.03	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
lower 0.00 0.02 1.25 0.10 0.66 1.42 0.09 0.14 0.09 2.36 1.44 0.69 lower 0.10 0.02 1.25 0.10 0.66 1.42 0.09 0.14 0.09 2.36 1.44 0.69 lower 0.10 0.02 1.25 0.10 0.66 1.42 0.09 0.14 0.09 2.36 1.44 0.69 lower 0.10 0.02 1.25 0.10 0.66 1.42 0.09 0.14 0.09 2.36 1.44 0.69 lower 0.10 0.09 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	nodding stick	seed	1	1	1	1	1	1	1	1	•	•	1	1	1	1	1	•	1	1	1
blower conditions of the condi	ox eye daisy		1	0.01	ı	1	ı	ı	ı	1	1	1	ı	ı	0.07	ı	ı	1	ı	1	1
trefoil 0.03 0.01 0.01 1 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.	ox eye sunflov	ver	0.10	0.02	1.25	0.10	0.66	1.42	0.09	0.14	0.09	2.36	1.44	0.69	0.15	0.95	0.83	0.49	ı	1.28	0.20
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	pale purple co	oneflower	ı	1	1	1	1	1	0.03	ı	1	0.01	0.01	ı	1	1	1	1	1	1	1
ar 0.09	panicledleaf t.	ick trefoil	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ar 0.09	partridge pea		İ	1	1	1	1	1	ı	ı	1	1	ı	ı	ı	1	0.01	1	ı	ı	1
ar $0.09$ - $0.01$ - $0.01$ - $0.01$ - $0.01$ - $0.00$ -	pineapple wee	þ,	ı	ı	1	1	1	1	1	1	1	1	ı	ı	1	1	ı	1	ı	1	1
ar ar ar ar ar ar ar ar ar ar ar ar ar a	plantain		0.09	ı	1	1	0.17	ı	1	ı	ı	1	ı	ı	ı	1	ı	0.01	1	1	ı
9.001 0.000 - 0.013 0.011 0.001 - 0.005  wer - 0.02 0.013 0.011 0.005  1.37 0.57 5.81 17.38 32.44 3.53 - 3.95 17.79 2.06 1.11 9.45 1  1.17 0.19 0.37 0.09 1.37 0.10  1.17 0.19 0.37 0.09 1.37 0.10  1.17 0.19 0.37 0.08 1.37 0.10  1.18 0.19 0.37 0.08 1.37 0.10  1.19 0.19 0.37 0.08 1.37 0.10  1.10 0.10 0.10 0.10 0.10 0.10 0.1	prairie blazinį	gstar	ı	ı	1	1	1	1	1 ,	1	1	1	1 (	1	1	1	1	1 ,	1	1	1
9 0.01	prairie cinque	foil	1 -	1	1	1	1	1	0.01	1	1	1	0.00	1 1	1	1	1	0.01	1	1 1	1
ver - 0.02 0.01 0.01 0.00 0.00 0.00 0.00 0.00	prickly lettuce	O)	0.01	1	1	1	ı	0.13	1	ı	1	1	1	0.02	1.18	1	0.17	0.03	1	0.19	1
Ner 0.01 0.01 0.00  1.37 0.57 5.81 17.38 32.44 3.53 - 3.95 17.79 2.06 1.11 9.45 1.11  1.17 0.19 0.37 0.09 1.37 3.40 0.40 0.01  1.17 0.19 0.37 0.08 0.10 0.01  1.17 0.19 0.37 0.08 0.10 0.01  1.17 0.18 0.19 0.37 0.08 0.10 0.01  1.18 0.19 0.19 0.19 0.19 0.19 0.001	prickly sowth	istle	ı	0.02	1	1	ı	1	1	ı	1	1	1	ı	1	1	1	1	1	1	1
Ner 5.84 0.00  1.37 0.57 5.81 17.38 32.44 3.53 - 3.95 17.79 2.06 1.11 9.45 3.5	prostrate verv	/ain	ı	1	1	1	ı	0.01	1	ı	1	1	1	1	1	1	1	1	1	1	1
1.37 0.57 5.81 17.38 32.44 3.53 - 3.95 17.79 2.06 1.11 9.45 3.51	purple prairie	clover	İ	1	1	1	İ	1	1	ı	1	1	1	0.00	1	1	1	1	1	1	1
1.37 0.57 5.81 17.38 32.44 3.53 - 3.95 17.79 2.06 1.11 9.45 3.5    0.09 1.37 1.17 0.19 0.37 0.08 0.10 0.01 0.01	queen annes l	ace	1	1	1 :	5.84	1 ;	1	1	1 1	1	1 (	1	1 1	9.43	1	0.06	0.37	ı	1 1	0.01
1.17 0.19 0.37 0.09 1.37 1.17 0.19 0.37 0.08 0.10	red clover		1.37	0.57	5.81	17.38	32.44	3.53	ı	3.95	17.79	2.06	1.11	9.45	10.56	1	0.54	1.03	ı	13.05	51.36
1.17 0.19 0.37 0.09 1.37 1.17 0.19 0.37 0.09 1.37 1.17 0.19 0.37 0.08 0.10	rough avens		ı	1	1	1	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1.17 0.19 0.37 0.09 1.37 1.17 0.19 0.37 0.09 1.37	rough cinquet	oil	İ	1	1	1	İ	1	1	ı	1	1	1	1	1	1	1	1	1	1	1
1.17 0.19 0.37 3.40 0.40 3.40 0.40	shepherds pur	rse	1	1	ı	1	1	0.09	1.37	1	1	1	1	1	1	1	1	1	ı	1	1
0.00	$\operatorname{smartweed}$		1.17	0.19	0.37	1	1	1	1	3.40	0.40	1	1	1	1	0.33	0.02	0.10	ı	3.17	0.49
0.08 - 0.10	stiff goldenroc	75	ı	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
0.08	stinging nettle	a)	ı	1	1	1	1	1	1	0.10	1	1	1	1	1	1	0.23	0.02	1	1	1
tall boneset 0.01 -	swamp milkw	pee	Ī	1	1	1	0.08	1	1	ı	1	1	0.01	ı	1	1	1	1	1	0.03	1
	tall boneset		İ	1	1	1	ı	1	1	ı	1	1	1	0.01	1	1	1	1	1	1	1

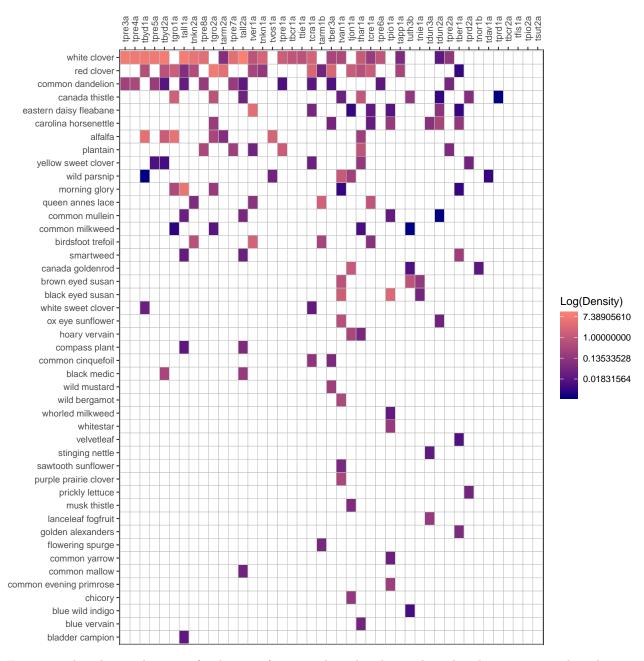


Figure 1: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2016.

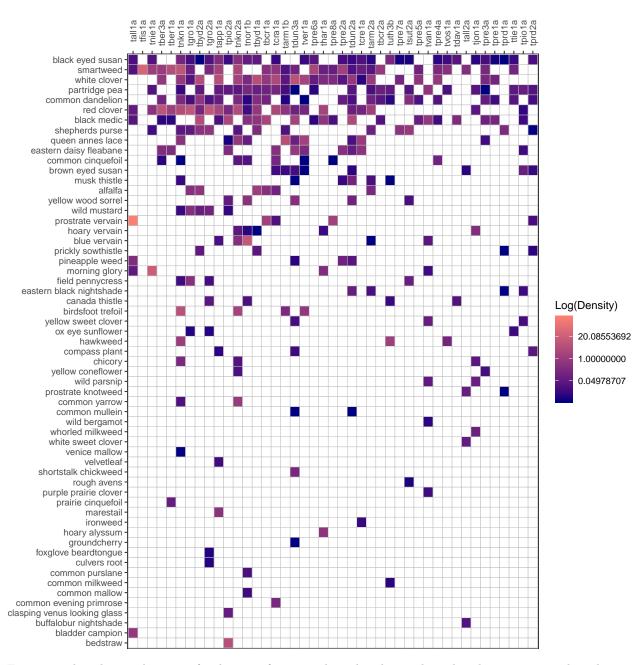


Figure 2: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.

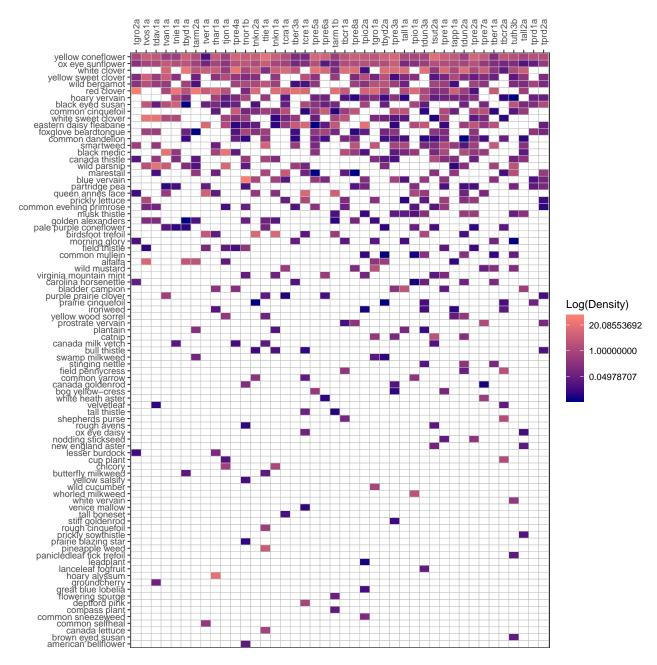


Figure 3: This plot is a heatmap for density of species planted and non-planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2018.

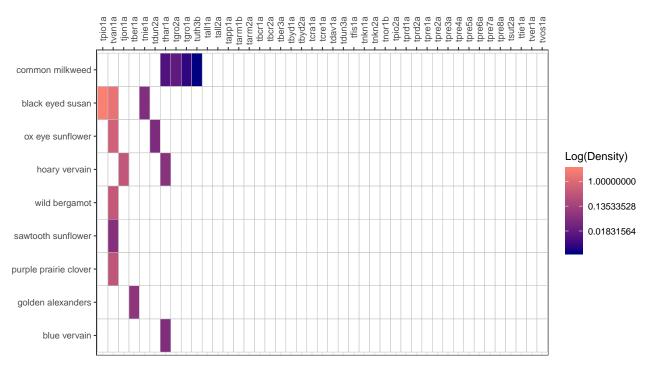


Figure 4: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2016.

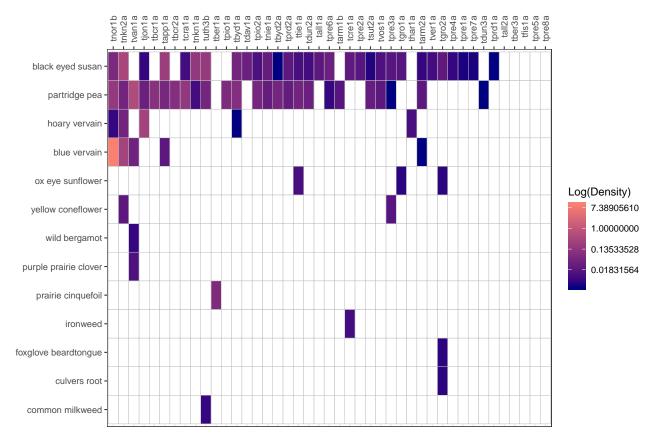


Figure 5: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by avg presence for year 2017.

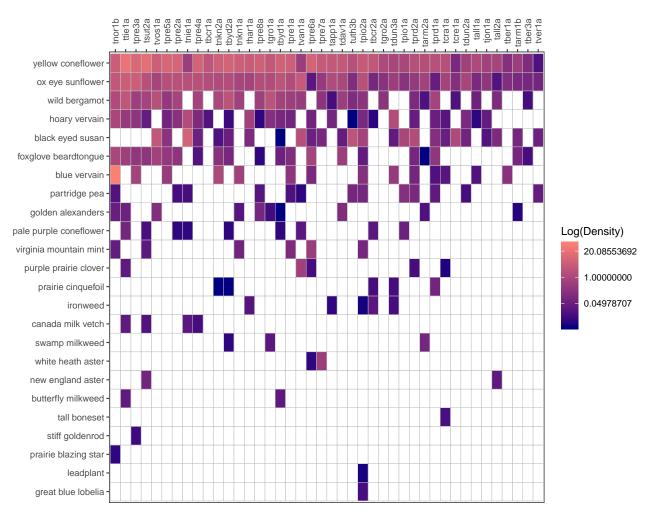


Figure 6: This plot is a heatmap for density of species planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.

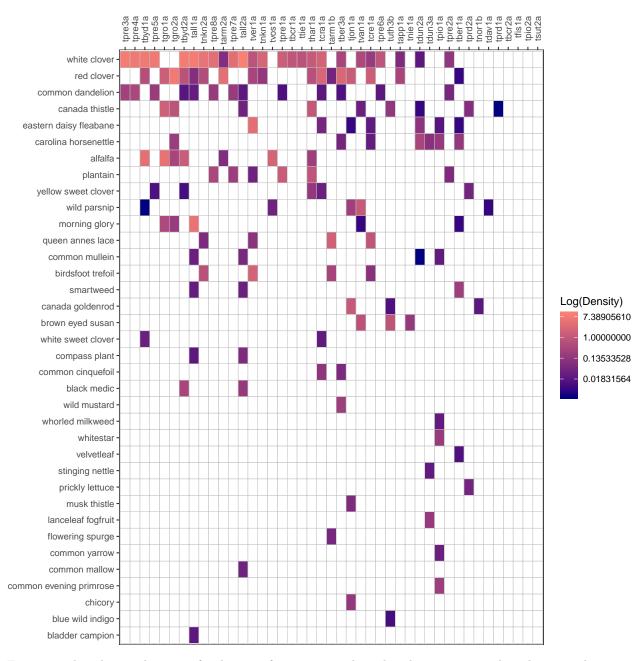


Figure 7: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2016.

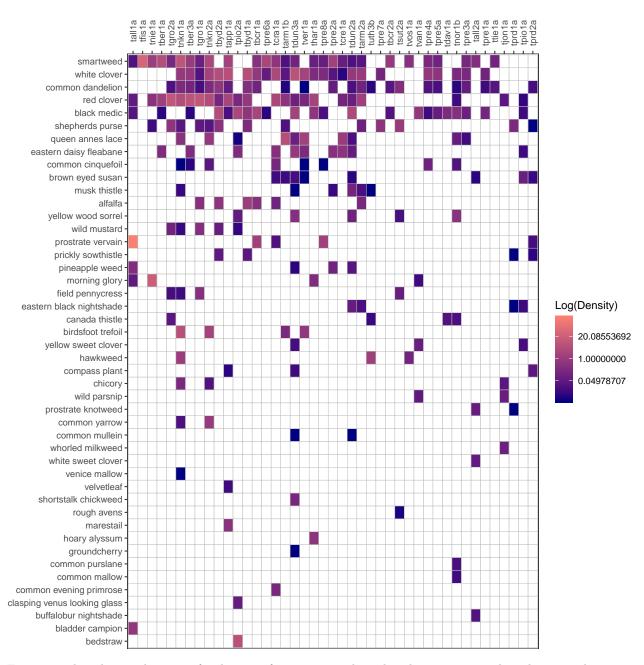


Figure 8: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2017.

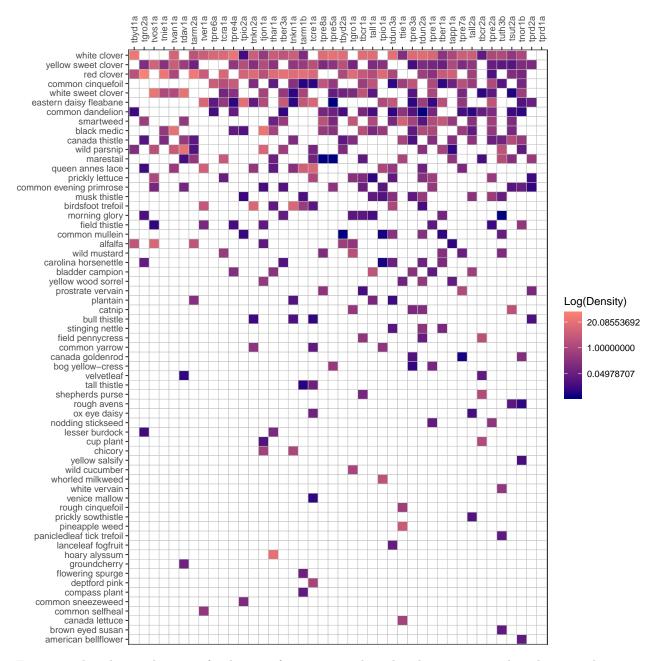


Figure 9: This plot is a heatmap for density of species non planted with transects on the columns and species on the rows sorting transects by average density and sorting species by average presence for year 2018.