

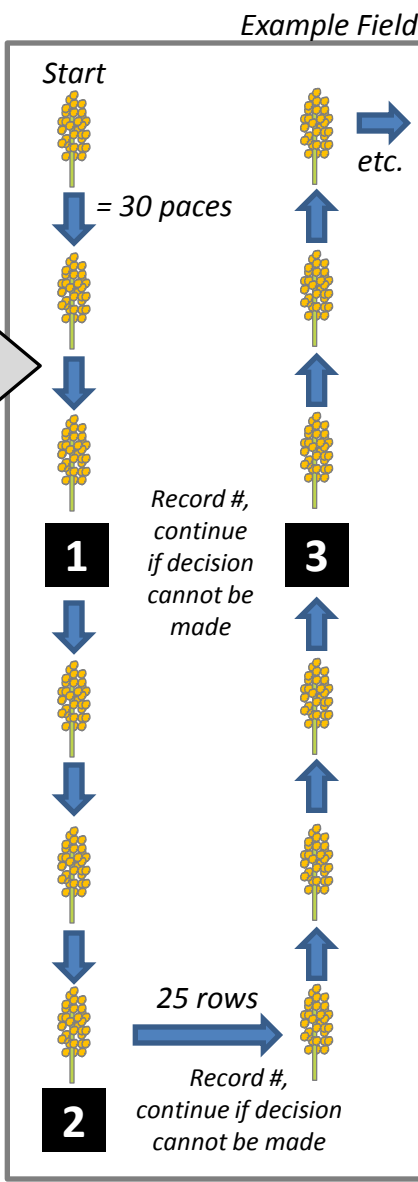
Sorghum Headworm Quick Count Sampling Plan

The Sorghum Headworm Decision Support System can help you identify sorghum pests, learn more about their biology, and determine the economic threshold for headworms in your sorghum field. You can print out other sequential sampling forms for use in sampling your field.

Go to entopl.okstate.edu/shweb/index.htm for more forms!

Directions for using the Quick Count:

1. Walk at least 15-20 feet into the sorghum field to begin sampling in one row.
2. Grasp the stalk just below the emerged sorghum head, bend the head into the bucket opening and vigorously beat the head against the side of the bucket where they can be seen and counted.
3. Walk 30 paces down the row and sample another head, then walk 30 more paces and sample another head in the same row.
4. After sampling 3 plants, stop, count and record the total number of medium size ($\frac{1}{4}$ - $\frac{1}{2}$ inches long) and large (greater than $\frac{1}{2}$ inches long) headworm caterpillars in the bucket. Ignore all caterpillars less than $\frac{1}{4}$ inches long. If there are mostly large caterpillars, use the Large Threshold. If there are mostly Medium-sized caterpillars, use the Medium Threshold. If there are about 50% large and medium, use the Mixed Threshold.
5. Sample 3 more plants in the same row and add the counts from the previous 3 plants, and add the caterpillar totals.
6. After sampling 6 plants within a row, move over 25 rows and continue the process for each 6 heads.
7. Compare counts with numbers in red (right) and green (left) boxes. If they equal or exceed the "Treat" box, then stop and treat. If they equal or are lower than the "Don't Treat Box, then stop sampling and Don't Treat. If they fall in the yellow "sample" box, keep sampling until you have sampled 48 heads. If you still can't make a decision at Stop #16, return in 3 days and resample the field.



The information in this sampling guide was developed in collaboration by:

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Use Caterpillar Size from First 3 Heads to Choose Threshold Below

Stop #	3 more heads + Previous total = New total	Large			Medium			Mixed		
		Do Not Treat	Sample 3 More Heads	Treat Field	Do Not Treat	Sample 3 More Heads	Treat Field	Do Not Treat	Sample 3 More Heads	Treat Field
1	First 3 heads	---	0 to 16	17 or more	8 or less	9 to 38	39 or more	---	0 to 35	36 or more
2	___ + ___ =	---	0 to 22	23 or more	35 or less	36 to 65	66 or more	3 or less	4 to 51	52 or more
3	___ + ___ =	2 or less	3 to 28	29 or more	61 or less	62 to 91	92 or more	19 or less	20 to 67	68 or more
4	___ + ___ =	8 or less	9 to 34	35 or more	87 or less	88 to 117	118 or more	34 or less	35 to 82	83 or more
5	___ + ___ =	14 or less	15 to 40	41 or more	113 or less	114 to 143	144 or more	50 or less	51 to 98	99 or more
6	___ + ___ =	20 or less	21 to 46	47 or more	140 or less	141 to 170	171 or more	66 or less	67 to 114	115 or more
7	___ + ___ =	26 or less	27 to 52	53 or more	166 or less	167 to 196	197 or more	81 or less	82 to 129	130 or more
8	___ + ___ =	32 or less	33 to 58	59 or more	192 or less	193 to 222	223 or more	97 or less	98 to 145	146 or more
9	___ + ___ =	38 or less	39 to 64	65 or more	219 or less	220 to 249	250 or more	113 or less	114 to 161	162 or more
10	___ + ___ =	44 or less	45 to 70	71 or more	245 or less	246 to 275	276 or more	128 or less	129 to 176	177 or more
11	___ + ___ =	50 or less	51 to 76	77 or more	271 or less	272 to 301	302 or more	144 or less	145 to 192	193 or more
12	___ + ___ =	56 or less	57 to 82	83 or more	298 or less	299 to 328	329 or more	160 or less	161 to 208	209 or more
13	___ + ___ =	61 or less	62 to 88	89 or more	324 or less	325 to 354	355 or more	175 or less	176 to 223	224 or more
14	___ + ___ =	67 or less	68 to 94	95 or more	350 or less	351 to 380	381 or more	191 or less	192 to 239	240 or more
15	___ + ___ =	73 or less	74 to 100	101 or more	376 or less	377 to 406	407 or more	207 or less	208 to 255	256 or more
16	___ + ___ =	79 or less	80 to 106	107 or more	403 or less	404 to 433	434 or more	222 or less	223 to 270	271 or more
		Economic Threshold for LARGE Headworms: THRESHOLD = 2.00/HEAD			Economic Threshold for MEDIUM Headworms: THRESHOLD = 10.50/HEAD			Economic Threshold for MIXED Headworms: THRESHOLD = 6.25/HEAD		

If you still can't make a decision at Stop #16, then return in 3 days and resample the field.