

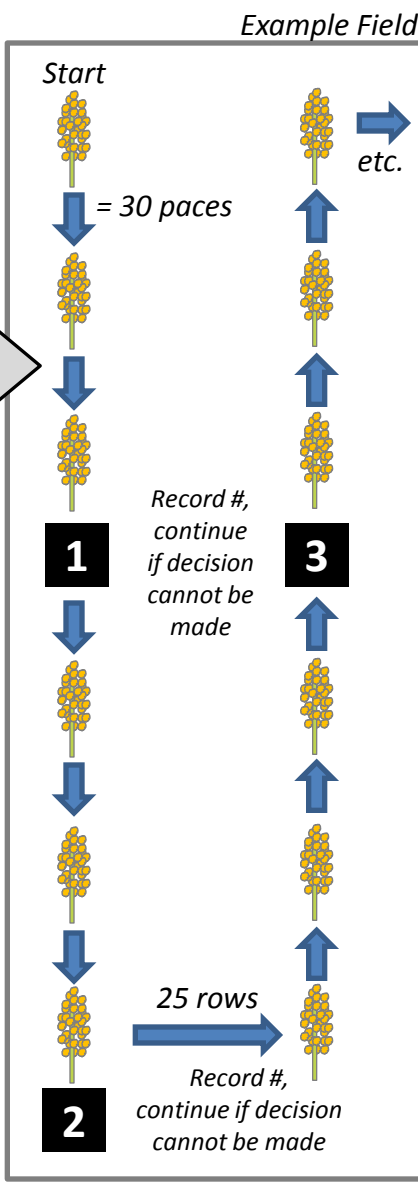
Sorghum Headworm Quick Count Sampling Plan

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 30	31 or more	---	0 to 117	118 or more	---	0 to 62	63 or more
2	___ + ___ =	---	0 to 1	39 or more	---	0 to 165	166 or more	---	0 to 86	87 or more
3	___ + ___ =	---	0 to 47	48 or more	45 or less	46 to 212	213 or more	16 or less	17 to 110	111 or more
4	___ + ___ =	6 or less	7 to 56	57 or more	92 or less	93 to 260	261 or more	40 or less	41 to 134	135 or more
5	___ + ___ =	15 or less	16 to 65	66 or more	140 or less	141 to 307	308 or more	64 or less	65 to 157	158 or more
6	___ + ___ =	24 or less	25 to 74	75 or more	187 or less	188 to 355	356 or more	88 or less	89 to 181	182 or more
7	___ + ___ =	33 or less	34 to 83	84 or more	235 or less	236 to 402	403 or more	111 or less	112 to 205	206 or more
8	___ + ___ =	42 or less	43 to 92	93 or more	282 or less	283 to 450	451 or more	135 or less	136 to 229	230 or more
9	___ + ___ =	51 or less	52 to 101	102 or more	330 or less	331 to 497	498 or more	159 or less	160 to 252	253 or more
10	___ + ___ =	60 or less	61 to 110	111 or more	377 or less	378 to 545	546 or more	183 or less	184 to 276	277 or more
11	___ + ___ =	69 or less	70 to 121	120 or more	425 or less	426 to 592	593 or more	207 or less	208 to 300	301 or more
12	___ + ___ =	78 or less	79 to 128	129 or more	472 or less	473 to 640	641 or more	230 or less	231 to 324	325 or more
13	___ + ___ =	87 or less	88 to 137	138 or more	520 or less	521 to 687	688 or more	254 or less	255 to 347	348 or more
14	___ + ___ =	96 or less	97 to 146	147 or more	567 or less	568 to 735	736 or more	278 or less	279 to 371	372 or more
15	___ + ___ =	105 or less	106 to 155	156 or more	615 or less	616 to 782	783 or more	302 or less	303 to 397	398 or more
16	___ + ___ =	114 or less	115-164	165 or more	662 or less	663 to 830	831 or more	325 or less	326 to 419	420 or more
		Economic Threshold for LARGE Headworms: THRESHOLD = 3.00/HEAD			Economic Threshold for MEDIUM Headworms: THRESHOLD = 15.80/HEAD			Economic Threshold for MIXED Headworms: THRESHOLD = 9.40/HEAD		

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