

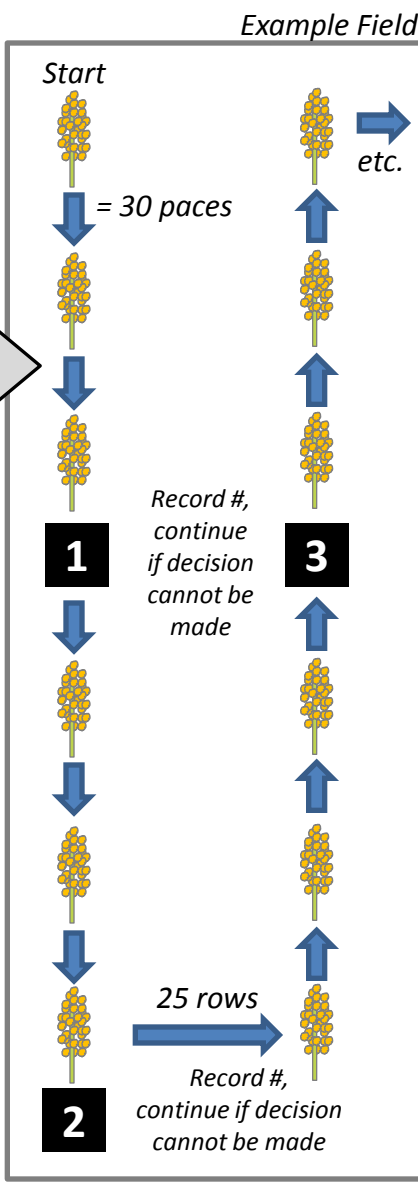
Sorghum Headworm Quick Count Sampling Plan

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/shwweb/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 (¼-½ inches long) and large (greater than ½ inches long) headworm caterpillars in the bucket. Ignore all caterpillars less than ¼ 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:

Research was funded 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 <input type="text"/>	---	0 to 9	10 or more	---	0 to 33	34 or more	---	0 to 18	19 or more
2	<input type="text"/> + <input type="text"/> = <input type="text"/>	---	0 to 12	13 or more	18 or less	19 to 52	53 or more	7 or less	8 to 28	29 or more
3	<input type="text"/> + <input type="text"/> = <input type="text"/>	3 or less	4 to 16	17 or more	37 or less	38 to 72	73 or more	16 or less	17 to 37	38 or more
4	<input type="text"/> + <input type="text"/> = <input type="text"/>	7 or less	8 to 20	21 or more	57 or less	58 to 91	92 or more	26 or less	27 to 47	48 or more
5	<input type="text"/> + <input type="text"/> = <input type="text"/>	10 or less	11 to 23	24 or more	76 or less	77 to 110	111 or more	36 or less	37 to 57	58 or more
6	<input type="text"/> + <input type="text"/> = <input type="text"/>	14 or less	15 to 27	28 or more	95 or less	96 to 130	131 or more	45 or less	46 to 66	67 or more
7	<input type="text"/> + <input type="text"/> = <input type="text"/>	18 or less	19 to 31	32 or more	115 or less	116 to 149	150 or more	55 or less	56 to 76	77 or more
8	<input type="text"/> + <input type="text"/> = <input type="text"/>	21 or less	22 to 34	35 or more	134 or less	135 to 168	169 or more	65 or less	66 to 86	87 or more
9	<input type="text"/> + <input type="text"/> = <input type="text"/>	25 or less	26 to 38	39 or more	153 or less	154 to 188	189 or more	74 or less	75 to 95	96 or more
10	<input type="text"/> + <input type="text"/> = <input type="text"/>	29 or less	30 to 42	43 or more	173 or less	174 to 207	208 or more	84 or less	85 to 105	106 or more
11	<input type="text"/> + <input type="text"/> = <input type="text"/>	32 or less	33 to 45	46 or more	192 or less	193 to 226	227 or more	94 or less	95 to 115	116 or more
12	<input type="text"/> + <input type="text"/> = <input type="text"/>	36 or less	37 to 49	50 or more	211 or less	212 to 245	246 or more	103 or less	104 to 124	125 or more
13	<input type="text"/> + <input type="text"/> = <input type="text"/>	40 or less	41 to 53	54 or more	230 or less	231 to 265	266 or more	113 or less	114 to 134	135 or more
14	<input type="text"/> + <input type="text"/> = <input type="text"/>	43 or less	44 to 56	57 or more	250 or less	251 to 284	285 or more	123 or less	124 to 144	145 or more
15	<input type="text"/> + <input type="text"/> = <input type="text"/>	47 or less	48 to 63	64 or more	269 or less	270 to 303	304 or more	132 or less	133 to 153	154 or more
16	<input type="text"/> + <input type="text"/> = <input type="text"/>	51 or less	52 to 64	65 or more	288 or less	289 to 322	323 or more	142 or less	143 to 163	164 or more
		Economic Threshold for LARGE Headworms: THRESHOLD = 1.25/HEAD			Economic Threshold for MEDIUM Headworms: THRESHOLD = 6.60/HEAD			Economic Threshold for MIXED Headworms: THRESHOLD = 3.90/HEAD		

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