

# TOM ROSTER'S 2016 NONTOXIC SHOT LETHALITY TABLE

## Proven Nontoxic Loads For Waterfowl, Doves, & Upland Game Birds,<sup>1</sup> Vel. Range Tested: 1,225 - 1,700 FPS

ACTIVITY	Observed Hunters' Typical Shooting Range During Activity (Yards)	Most Effective Nontoxic Shot Size(s) For Birds Listed Under ACTIVITY At The Distances Listed In The Second Column	Minimum Load Weight (Ounces)	Minimum Pellet Hits Needed on Lethal Areas for Clean Kills	Minimum Pattern Count Needed at Any Distance for Clean Kills (# of Pellets in 30" Circle)	Most Effective Choke(s) at Distance (Given in Lead Shot Choke Designations)	NOTE: The pellets in the steel shot loads listed in this table were traditional, highly spherical ball-shaped pellets of ~ 7.86 g/cc density and 90-95 DPH hardness. The HEVI-Shot pellets were of 12.0 g/cc density and are harder than traditional steel pellets.
<b>Large Geese At Long Range</b> Giant, Western, Atlantic and Interior Canadas	50-65 50-70	Steel BBB to T HEVI-Shot 2 to B	1-1/4 1-1/2	1-2 1-2	50-55 50-55	Improved Modified Improved Modified, Full	
<b>Large Geese Over Decoys</b>	35-50 35-50	Steel BB to BBB HEVI-Shot 2 to B	1-1/4 1-1/2	1-2 1-2	50-55 50-55	Improved Cylinder, Modified Improved Cylinder, Modified	
<b>Medium/Small Geese Long Range</b> Snow, White-fronted, Lesser Canadas	50-65 50-65	Steel BB to BBB HEVI-Shot 2	1-1/4 1-1/2	1-2 1-2	60-65 60-65	Improved Modified Improved Modified, Full	
<b>Medium/Small Geese Over Decoys</b>	35-50 35-50	Steel 2 to BB HEVI-Shot 4 to 2	1-1/8 1-1/4	1-2 1-2	60-65 60-65	Light Modified, Modified Improved Cylinder, Modified	
<b>Large Ducks At Long Range</b> Mallard, Black, Pintail, Goldeneye, Gadwall	45-65 45-65	Steel 2 to 1 HEVI-Shot 4	1-1/8 1-1/4	1-2 1-2	85-90 85-90	Improved Modified, Full Improved Modified, Full	
<b>Large Ducks Over Decoys</b>	20-45 20-45	Steel 6 to 2 HEVI-Shot 6 to 4	3/4 - 1 1-1/8	1-2 1-2	85-90 85-90	I.C. (20-35 Yds), Mod. (35-45 Yds) I.C. (20-35 Yds), Mod. (35-45 Yds)	
<b>Medium Ducks Over Decoys</b> Wigeon, Scaup, Shoveler	20-45 20-45	Steel 6 to 3 HEVI-Shot 6 to 4	1 1-1/8	1-2 1-2	115-120 115-120	I.C. (20-35 Yds), Mod. (35-45 Yds) I.C. (20-35 Yds), Mod. (35-45 Yds)	
<b>Small Ducks Over Decoys</b> Teal, Ruddy, Bufflehead	20-45 20-45	Steel 6 to 4 HEVI-Shot 6	1 1-1/8	1-2 1-2	135-145 135-145	Mod. (20-35 Yds), Full (35-45 Yds) Mod. (20-35 Yds), Full (35-45 Yds)	
<b>Ring-Necked Pheasants</b>	20-50 20-50	Steel 3 to 2 HEVI-Shot 6 to 4	1 1-1/8	2-3 2-3	90-95 90-95	I.C. (20-30 Yds), Mod. (30-50 Yds) I.C. (20-30 Yds), Mod. (30-50 Yds)	
<b>Turkeys (Head and Neck Shots)</b>	20-40	Steel 4; HEVI-Shot 6	1-1/4	3-4	210-230	Full or Extra Full	
<b>Mourning Doves</b>	20-45 20-45	Steel 8 to 7 HEVI-Shot 7 1/2	3/4 - 3/4 3/4	1-2 1-2	200-210 200-210	IC-8's/LM-7's (20-30 Yds); Mod.>30 Yd I.C. (20-30 Yds); Light Mod (30-45 Yd)	
<b>Northern Bobwhite Quail</b>	20-30	Steel 8 to 7	3/4 - 3/4	1-2	200-210	Imp. Cyl., Light Modified	
<b>Swatter Load For Wounded Birds</b>	20-30	Steel 7 to 6	1	1	175	Improved Modified, Full	

This table summarizes Tom Roster's analyses to date of the lethality data bases for certain of the 16 U.S. steel vs lead waterfowl & dove shooting tests published between 1968 & 2014 & one steel-only pheasant shooting test (1999) plus lethality data bases owned by ammunition companies for birds taken with nontoxic shotshell loads Roster tested for them & the CONSEP Org. Note: Steel #BBB (.190") & HEVI-Shot #2 (.150") have exhibited the best all-around performance for taking geese; steel #3 (.140") & HEVI-Shot #4 (.130") the best all-around performance for taking ducks; steel #2 & HEVI-Shot #4 (.130") the best all-around performance for taking ring-necked pheasants; & steel 7's (.100") the best all-around performance for taking doves.  
<sup>1</sup>These findings are derived from testing 2 3/4" 28 gauge; 3" 20 ga.; 2 3/4" 3" & 3 1/2" 12 ga.; & 3 1/2" 10 ga. steel loads; plus 2 3/4" 28 ga.; 2 3/4" & 3" 20 ga.; and 2 3/4" & 3" 12 ga. HEVI-Shot loads.  
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