You can shoot deer while wearing fluorescent blazo-orange. Some people think deer might be scared by it, but this 184-pound, dressed-weight, Maine buck took just one standing shot to become venison. Jack Woolner, the Division's audiovisual aids supervisor, has repeatedly taken deer while decked out in flaming fluorescent colors. Deer are believed to be color blind.
Safety Color Study

by
"Red" Chaplin

Photos by the author and Dick Woolner

The Massachusetts hunter-safety color study was a practical field test of garments that could be worn by hunters to prevent being mistaken for a white-tailed deer and to produce maximum visibility in the woods. In the first part of each series of tests, a 2½-mile trail was marked with string through a variety of deer hunting country. Here, Army personnel and men of the divisions of Law Enforcement and Fisheries and Game discuss a target location.

Targets observers hunted for along the trail were cloth vests, placed on Army silhouette targets, and numbered to insure accurate interpretation of test data. Fluorescent colors tested were blaze orange, neon red, fire orange, and arc yellow. Standard colors tested were "Old Glory" red, and a bright yellow closely matched to the shade selected in past tests. 84 targets were placed, 12 of each color, at distances of 25, 50, 75 and 100 yards. Order of colors was selected at random.
All personnel used as observers in the test were screened to determine their color vision. Six and one-half percent of observers used had deficient color vision, to correspond with the national average. Here, Dr. Oscar W. Richards, chief biologist of the American Optical Company, tests one of the men.

Briefing of personnel was as complete as needed to insure correct procedure and accuracy of results—and as incomplete as necessary to prevent any possible chance of biasing results. Men were told what they were to do—but not what they would see. Observers were told to look for targets along the trail and tell their accompanying recorder the color they saw. The recorder was told to write down, on forms provided, exactly what the observer told him, and to record the actual number of the target.

SEE "BE SEEN" — The 16mm sound and color film about the Massachusetts Hunter-Safety Color Test. It's available to groups now—write the Information and Education Section, Fisheries and Game Field Headquarters, Westboro, Mass.
Observers and recorders were paired off, and a data sheet prepared on each observer. Information as to weather, time of day, light conditions, and the observer's name, Army serial number and hunting experience were recorded. The recorder used this same sheet to record observer's reaction to targets sighted in the field.

Observer points out target to his recorder. After three tests, October (with fall foliage), November (without foliage), January (with snow), observers had sighted fluorescent blaze orange a total of 2,243 times. Neon red was second, with 2,223 sightings. Fire orange was sighted 2,038 times. Arc yellow was at the bottom of the fluorescent colors with 1,937 sightings. Ordinary red was found 1,687 times, and ordinary yellow made the poorest showing; soldiers found it only 1,635 times.
After completing their portion of the test, each observer was asked which color he thought was easiest to see, which was hardest to see, which color looked the least like anything in nature, and which color he would choose to wear for protection while hunting. Blaze orange was rated easiest to see and the choice for hunting, by a majority of men, followed by neon red. Ordinary yellow was picked by only nine of the 425 soldiers who answered the question. Results of the interviews tallied with results of field observations.

Third part of each series of tests, run through a variety of weather and seasonal conditions, was set up to simulate the tension and excitement of hunting—and to find out if any of the test colors could be mistaken for white and draw fire from "flag shooters". Eighteen disappearing targets like this were used, nine of them painted white, the rest painted in test colors. Soldiers were instructed to shoot only at the white "tails." Ranges were from 50 to 225 yards.

The second part of each series of tests had targets—now placed on men—moving along the marked trail. Stationary observers and recorders made the same observations as in the previous part. Results were the same—blaze orange was rated the best color.
Two surprise targets—human figures—were included. One had a yellow vest and cap, the other wore a fluorescent fire-orange outfit. The yellow vest on this human cutout drew two shots in mistake for white.

Soldiers fired 569 rounds at white targets during the three test series—as instructed. They also fired 13 times at yellow targets in the mistaken belief they were white. Blaze orange drew only one shot—and the soldier who fired this had a rare type of color vision which resulted in his firing at all targets that moved. Results of all three parts of the series of tests show that fluorescent blaze orange was consistently the most visible, the most unnatural looking, and the least likely to be mistaken for white. Legislation requiring wearing this color during the firearm deer season is recommended by the test committee.

Wear Blaze Orange, Be Seen, Be Safe!