



FIELD OBSERVATION NOTE #1-A **RADIARC**[®] SPRAYER

**FOREST VEGETATION MANAGEMENT
APPLICATIONS WITH RADIARC[®] SPRAYER**

Foresters in many of the forest regions of the U.S. are finding the **RADIARC** to be a valuable tool for applying forest site preparation and conifer release sprays. Uniform application rates across the spray swath, control of spray drift, economical low volumes and absence of fine particles which produce swath displacements are some of the observations foresters have made.

For best results, mount the **RADIARC** at the rear of a skidder or other rough terrain vehicle. A mounting height of six to eight feet is common. (Be sure the spray pattern covers the top of the brush canopy.) Point the **RADIARC** spray head to apply a 180 degree diameter pattern to the rear of the sprayer, away from the direction of travel. A spray pressure of 30 to 35 psi at the spray unit will provide a 35' to 40' spray swath. The .030" nozzles at 30 psi will provide a spray volume of 17 gallons per acre on a 35' swath at 2 mph. Use of the .045" nozzles will provide larger droplets with more resistance to wind.

If all nozzles are used, a pattern with heavy edge deposition will result. For a uniform pattern across the spray swath, without heavy application at the edges, use a nozzle arrangement similar to this:

(N = Nozzle, P = Plug)

**N P N N N N N N P N P
P N P N N N N N P N**

Miller (1) reported an even distribution pattern across the swath using a **RADIARC** with the following nozzle pattern:

Top — .045 plug .045 .070 .070 .070 .070 .070 .070 .045 .045 plug
Bottom — plug .045 .045 .070 .070 .070 .070 .070 .045 plug .045

For this test, the **RADIARC** was mounted behind a crawler tractor at a 6 foot height, pointed to the rear, tilted up 10 degrees to the direction of travel. At 40 psi, with a tractor speed of 2mph, the **RADIARC** applied 9 gal./min., with a swath width of 38 feet, giving a volume of 58 gallons per acre.

The following low volume **RADIARC** nozzle pattern, used under the same operating conditions, will apply a volume of 4.3 gallons per minute giving a volume of approximately 30 gallons per acre at 2mph forward speed.

Top — .030 plug .030 .045 .045 .045 .045 .045 .030 .030 plug
Bottom — plug .030 .030 .045 .045 .045 .045 .045 .030 plug .030

1. Miller, J.H. 1990. Spray distribution of boomless nozzles: the Boomjet 5880, **RADIARC** and Boom Buster. In Proc. Southern Weed Science Society (in press).

(OVER)

Test the pattern on a dry area such as a parking lot and make nozzle, plugs, and rheostat adjustments to apply a uniform pattern. If you wish to overlap your spray swaths remove another nozzle at each end, giving a nozzle arrangement as shown above (again observe deposition pattern for best results with your equipment).

RADIARC Applications Can Be Used For:

- Pre-emergence Weed Control
- Herbaceous Vegetation Control
- Brush Control

Marking

Marking spray swaths in forest terrain is always a challenge. Some applicators use colorants with good results. Emulsions sometime remain visible for an adequate time. Many applicators guide on the wheel tracks of their previous swath with good results. Operator skill is important.

