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LOCATING DISEASED TREES WITH RADIO TRANSMITTERS
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Pockets of diseased trees can be seen easily from aircraft, but are often difficult to find on the ground in remote areas. Speedier ground location would facilitate disease research and control. A technique has been developed by which a foam rubber-protected radio transmitter is dropped from an aircraft into a pocket of diseased trees. Using a radio receiver tuned to the frequency of the transmitter and a hand-held yagi antenna, searchers can easily relocate these areas on the ground. A radio transmitter weighing between 20 and 40 g was placed in the 10-cm-diameter ball. A 90-cm tail made from brightly colored plastic ribbon was attached to the ball for added visibility and stability. Seventeen successful drops were made from aircraft under various conditions. The round foam rubber ball-transmitter combination could be accurately and safely dropped into target areas without damage to equipment or injury to persons on the ground. Ground search time ranged from 5 to 40 minutes. In all tests the ball protected the transmitter from damage even when dropped from an altitude of 366 m. The device has other uses, such as finding people lost in the woods and locating forest fires in remote areas.

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