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VERMICULITE AS A MEDIUM FOR GERMINATION TESTING

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In running germination tests on conifer seed it is frequently the practice to use sterile sand as a medium. The flats filled with sand are heavy and when the nurseryman can not spend time every day inspecting the flats, it is difficult to keep a uniform moisture condition.

This spring a few flats were filled with vermiculite and sown to jack pine seed. At the same time other flats filled with sterile sand were sown with seed from the same source.

The flats were kept in the laboratory of the office where the day temperatures were 70 - 80° and the night temperatures as low as 40°.

The sand and vermiculite were kept moist, watering being accomplished by placing the flats in the sink which contained about an inch of water. The vermiculite absorbed water very rapidly, only a few seconds being required for the moisture to reach the surface, whereas several minutes were required in sand. Also, the sand required moistening every few days, while the vermiculite did not need this for over a week.

The seed was sown in all flats on March 13th and germination started 12 to 14 days later, with germination in both the sand and vermiculite starting at about the same time and progressing at about the same rate. The final germination in the two media was the same in one case and the vermiculite gave a slightly higher germination in the other test.

We plan on using vermiculite in more germination tests this coming year as its lightness and ability to absorb and retain moisture are a decided advantage.