

SOIL FUMIGATION USING BASAMID, A GRANULAR FUMIGANT

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Timberline Nursery is a 75-acre, wholesale nursery specializing in providing bare-root juniper and arborvitae liners to nurseries throughout the United States. All of our propagation is done outside in topsoil beds. Each bed is 4 ft wide and 400 ft in length. The cuttings are taken from our nursery stock grown in containers.

For fumigation and sterilization of the topsoil beds we use Basamid—a safe, easy-to-use, granular soil fumigant. Basamid controls nematodes, weed seeds, and diseases such as root rot, *Phytophthora*, *Pythium*, and *Rhizoctonia*. The active ingredient in Basamid is dazomet.

Many appealing factors make Basamid our preferred fumigant. No special equipment is necessary such as soil injectors and plastic coverings. You can use equipment you presently have at your nursery. Basamid can be applied at your convenience since Basamid releases and forms a gas only after moisture is applied. This makes it a safe product to use at the time of application.

METHODS OF APPLICATION

Soil preparation. Before the soil is treated with Basamid, we subsoil and chisel plow the soil.

Application. We use a Paulk distributor, which is 5 ft wide with holes 2 in. apart. This gives an even distribution of the granular Basamid over our 4-ft beds. Another good applicator to use is the Gandy distributor. The rate we use is 350 lb per acre. The cost is approximately \$3.00 per lb.

Tilling. Next, we till the Basamid in by using a rotary tiller behind a tractor driven in super-slow gear. The tiller reaches a soil depth of about 8 in. The tiller has weights on the back door so that the soil is slightly compacted to form a cap.

Irrigation. Water is added until the soil is saturated. This causes the Basamid to release and change to a gas. The cap formed during tilling seals the gas in the ground.

Soil aeration. Ten days to two weeks later the Basamid has fully released its gas and the soil is sterile. We aerate the soil using a smaller tiller so that we do not mix the treated soil with the untreated soil. Amendments such as fertilizers and lime are added at this time.

Ready to plant. After aerating the soil and adding the amendments, we are ready to plant. A bed 4 ft wide is formed with the tiller. We then lay down a guide string and begin striking cuttings in the bed.

DISCUSSION AND CONCLUSION

Basamid soil fumigant has proven to be effective in our nursery for sterilizing our topsoil beds prior to propagation. We find it to be safe and easy to use. Basamid requires no special equipment for the product to be applied. Basamid remains stable and does not change to a gas until water is applied.

For more information on Basamid Soil Fumigant contact Loveland Industries, Inc., P.O. Box 1289, Greeley, Colorado 80632, (303) 356-8920.