

MATERIALS FOR SOIL FUMIGATION - CHARACTERISTICS,
AVAILABILITY, APPLICATION METHODS

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Soil fumigants that are available have become limited within this last year. Shell Chemical's D-D has been one of the first to be withdrawn from the market. Shell voluntarily withdrew the product because of maturing markets and costs that would be involved in quality improvements in the manufacturing of D-D. Another recently cancelled product is EDB. This product was used extensively at one time for potato ground fumigation. The main reasons for the cancellation has been the high levels of EDB found in ground water and food products. The potato grower has only two products remaining that he can use: Telone and Metam.

Dow Chemical is the manufacturer of the Telone products. There are two formulations that are available, Telone II and Telone C-17. The difference is Telone II is 1-3 D's and Telone C-17 is 1-3 D's plus chloroperin.

Telone can be applied either as a fall or spring treatment. The best method for application is shanking the material into the soil. Telone is applied as a liquid and converts to a gas. There are many factors that effect the performance of Telone. Since it moves through the soil as a gas form, the soil can't be too wet. Wet soil has less air capacity than drier soil so Telone would penetrate less. Adequate moisture is important for assuring a good seal to keep from letting the Telone escape. Check the labels of these two products for different soil conditions and pest control before applying them.

Metam is a product that has been around for some time. Not until Bill Foeppel (Extension Agent) and Mick Qualls (Stauffer Chemical) did plot work in 1978, did anyone realize the potential with this product. Stauffer was the pioneer with their product, Vapam, for water applied fumigants.

There are two other Metam products besides Vapam, on the market: Soil Prep from Wilbur-Ellis, and Nemasol from Trans Bas. Metam can be also applied as either a fall or spring treatment. It takes 1" of water at application to move the material into the soil. Good equipment is a must for accurate application of Metam. A normal amount of time to apply takes from 65 - 80 hours. Once Metam is applied, it converts to a gas and then back to the water molecules. Good moisture in the soil is important because of mode of movement within the soil. Check the labels for rates and soil conditions.