

## MEMO

To: Agents in Tobacco Growing Counties

From: Paul Denton  
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Re: [Cold Protection for Float Beds](#)

Although we do not have many direct seeded outside float beds anymore, the information below from Bob Pearce and Andy Bailey may be of use today for producers who still have them, and for those with unheated greenhouses.

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Current forecast are predicting low temperatures into the upper 20s for the next couple of mornings. I have had several calls about protecting young tobacco plants in outdoor beds and unheated greenhouses. Below are some points to consider:

Outside beds:

- Adding a second cover will provide additional protection and reduce the potential for freeze damage down to about 30 degrees or so. A second canvas cover (tytar or continental) provides better heat retention than a plastic cover. At temperatures below 30 degrees additional measures may be needed to avoid freeze damage.
- Light bulbs have been used to maintain critical temperatures in outside beds. Always stress the need to have any electrical service around float beds connected to a Ground Fault Interrupt (GFI) to avoid electrical shock. Use a 100 or 150 watt bulb about every 10 to 12 feet for a normal width bed. This should provide some protection down into the mid-twenties. Do not use heat lamps as they provide a concentrated heat pattern that can result in significant damage to plants immediately under the lamp.

Unheated greenhouses or outside beds:

- Portable propane or kerosene heaters have been used to maintain temperatures above critical levels in unheated greenhouses and float beds. The goal of using such heaters should be to maintain temperatures above freezing (mid-forties would be a good target) not to keep plants at 72 degrees. The concern with the portable heater or any other unvented heater is that dangerous fumes can build up when they run for long periods of time with little

or no ventilation. These fumes can damage seedlings as well as be dangerous to people working in the greenhouse. When such heaters are in use it is a good idea to flush the air in the space once or twice a day and leave a small opening for fresh air to enter.

Bob Pearce and Andy Bailey

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