

# Digging Date and Freeze Damage

# Current Recommendation

Do not dig within 72 hours prior to frost or freeze

Freeze damage of 2% or more results in Seg II peanuts and substantial financial loss

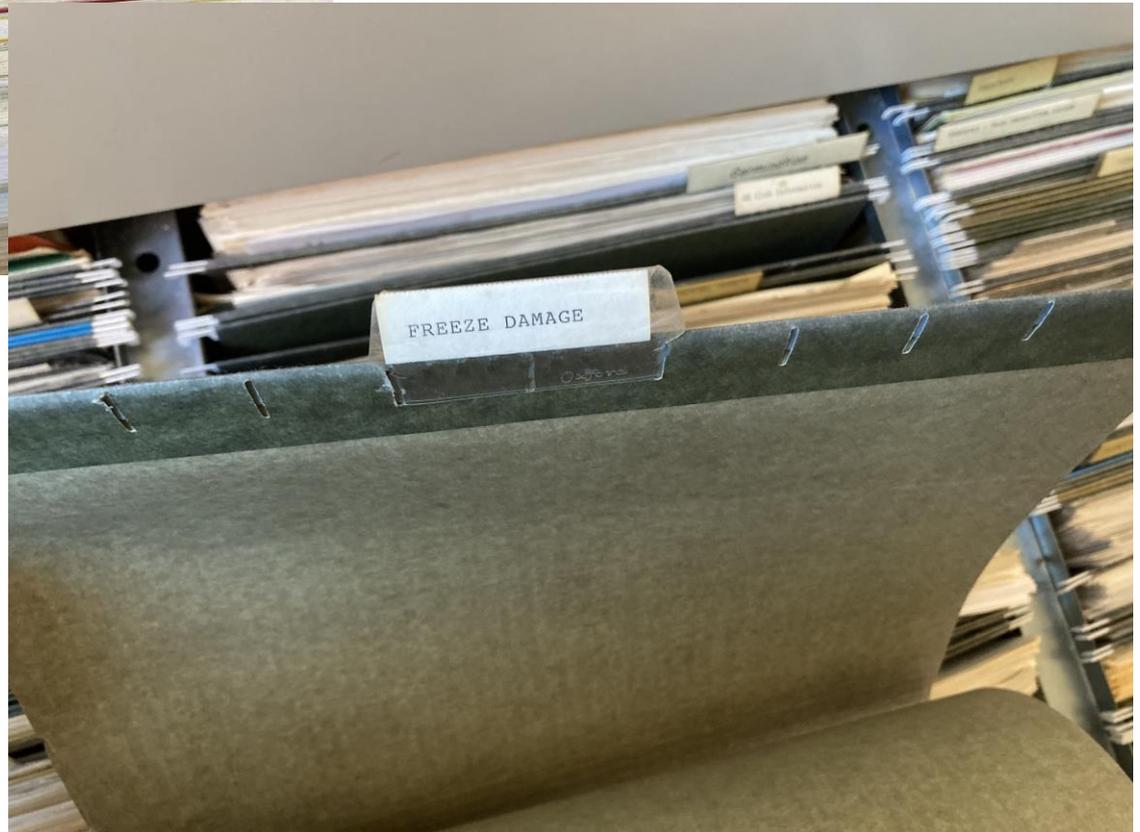
Pods and kernels need to adequately dry to prevent freeze damage, especially immature pods and kernels

Dig within 3 days after a freeze to minimize pod shed

Original source of recommendations?



# The Gene Sullivan Files



LEWISTON NC	51.	50.	56.	58.	59.	50.	42.	<b>35.</b> <b>FROST</b>
LUMBERTON NC	55.	55.	57.	60.	60.	55.	46.	39.
ORANGEBURG SC	57.	57.	58.	58.	59.	56.	47.	40.

	NATIONAL WEATHER SERVICE MODEL GIVING PROBABILITY OF RAIN							
CAPRON VA	-	-	-	-	0	20	20	0
SKIPPERS VA	-	-	-	-	0	20	20	0
SUFFOLK VA	-	-	-	-	0	20	20	0
WAKEFIELD VA	-	-	-	0	0	20	20	0
WAVERLY VA	-	-	-	0	0	20	20	0
GREENVILLE NC	0	-	-	-	0	10	10	10
LEWISTON NC	-	-	-	-	0	10	20	0
LUMBERTON NC	-	0	-	-	0	10	10	10
ORANGEBURG SC	0	10	-	-	0	-	10	10

**A FREEZE IS IN THE FORECAST FOR WEDNESDAY MORNING IN CAPRON, SKIPPERS AND WAVERLY.**

**FROST IS EXPECTED WEDNESDAY MORNING IN SUFFOLK, WAKEFIELD, GREENVILLE, AND LEWISTON.**

## 2023 Research

Predicted freeze on Thursday morning (November 2) allowed digging on Monday, Tuesday, Wednesday, and Thursday to determine how well the 72-hour recommendation holds up

The freeze was relatively hard and we are not sure how the information would translate to a typical frost



Freeze damage before and after digging

**Percent moisture 14 hours prior to a hard freeze and freeze damage.<sup>a</sup>**

**Lewiston and Rocky Mount**

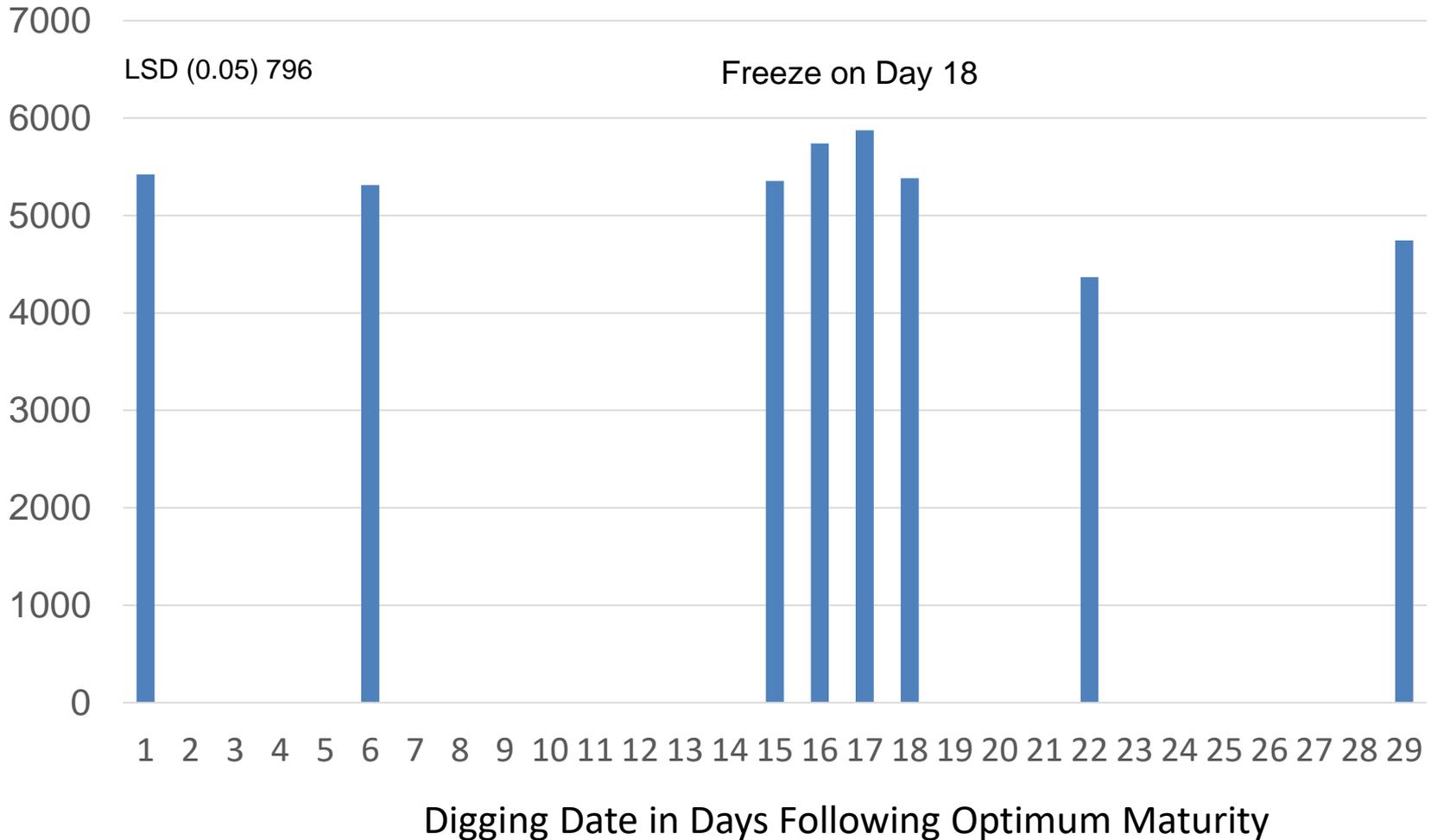
<b>Digging date (hours before freeze)</b>	<b>Moisture (Wednesday)</b>	<b>Freeze damage (highest of the range)</b>
Monday (60)	30 to 36	1.8 (3.8)
Tuesday (48)	36 to 40	3.1 (5.1)
Wednesday (14)	40 to 46	4.0 (6.0)
Thursday (day after)	-	2.5 (8.8)

<sup>a</sup>Drying conditions on Tuesday and Wednesday were not ideal (rain and clouds) freeze on Thursday and Friday mornings

# Peanut Yield

## Pounds per Acre

### Minimal Defoliation of Peanut Canopy



## 2023 Summary

Greater variability in freeze damage when digging was closer to freeze event (more variation in moisture of pods)

Did not have a 72 hour interval (Sunday digging)

Hard freeze and not a typical frost

Yield was lower 5 and 12 days after the freeze event (there is not a no-freeze control)

The rate of yield loss from freeze damage above ground did not appear to be more rapid than yield loss caused by disease (inconclusive)

Recommend 96 hours. Some contracts have lower limits than 2%