



State of New Jersey

PHILIP D. MURPHY
Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION
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CATHERINE R. McCABE
Commissioner

SHEILA Y. OLIVER
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April 21, 2020

To Agriculture and Agribusiness Representatives:

The New Jersey Department of Environmental Protection (DEP) is issuing this notice concerning open burning due to colder spring overnight temperatures presently forecast for areas of New Jersey from **Tuesday, April 21 through Wednesday, April 29, 2020**, which could adversely affect fruit, vegetable, and floriculture crops in bloom or near bloom around the state. The DEP intends to exercise its authority and discretion under the Air Pollution Control Code, N.J.A.C. 7:27, et seq., and other applicable authorities to permit the following procedure for open burning or the use of smudge pots to assist farmers to protect their crops in low temperatures.

Procedures for Open Burning and the Use of Smudge Pots Pertaining to New Jersey Fruit, Vegetables and Floriculture

- Facilities that believe they will conduct open burning or use smudge pots **must provide notice** to the DEP 24-hour Communications Center at 1-877- WARN DEP (1-877-927-6337) prior to the use of either technique.
- Facilities should notify DEP if they believe they may need to use either technique.
- Where DEP cannot be notified in advance, a facility must notify DEP the following morning no later than 9:00 a.m.
- The following information must to be provided to DEP upon each notification:
 1. Name of the individual deciding to conduct the open burning or use of smudge pots
 2. Name of the farm or facility
 3. Actual street address of the facility on which either technique will be used
 4. Contact person and telephone number at the facility
 5. Predicted temperature (in F) at facility anticipated when the technique will be used
 6. Predicted wind speed at facility anticipated when the technique will be used
 7. Predicted hours of open burning or use of smudge pots
 8. Predicted material to be used for open burning or use of smudge pots
- Upon completion of the open burning or the use of smudge pots, the facility must provide the following information within 2 business days to the DEP 24-hour Communication Center at 1-877-WARN DEP (1-877-927-6337):

1. The DEP Communications Center incident number
2. Ambient orchard(s) temperature (in F) at the time the technique was used
3. Actual wind speed at the orchard(s) location at the time the technique was used
4. A statement that all restrictions in the open burning or use of smudge pots were followed. The restrictions are noted below.

RESTRICTIONS

- **NO OPEN BURNING WILL BE PERMITTED UNLESS:**

1. The temperature within the orchard area is at or below the critical temperature for the bud stage. The attached report lists the critical temperatures for New Jersey crops.

-AND-

2. **The wind velocity is less than 5 miles per hour.**

- Authorized open burning material may consist only of either the following materials: clean scrap lumber (untreated), felled trees, prunings, hedgerows or firewood.
- **ABSOLUTELY NO** refuse, trade waste, tires, garbage, or other solid waste may be added to the authorized open burning material. **Introduction of any unauthorized material into an authorized open burn is a violation of environmental laws and may carry significant penalties.**
- **Smudge pots are only permitted when** the temperature within the orchard area is at or below the critical temperature for the bud stage (wind velocity restriction does not apply).
- Smudge pots must be fueled only with either kerosene or No. 2 fuel oil.
- Failure to abide by these provisions and restrictions may result in enforcement action.

If you have any question, please contact Richelle Wormley, the Director of the Division of Air Enforcement at Richelle.Wormley@dep.nj.gov.

Respectfully,



Elizabeth Dragon
Assistant Commissioner

Attachment
Critical Temperatures for Frost Protection

c: New Jersey Department of Agriculture

Critical Spring Temperatures for Tree Fruit Bud Development Stages

Pome Fruit									
Apples	Silver tip	Green Tip	½ inch green	Tight Cluster	First Pink	Full Pink	First Bloom	Full Bloom	Post Bloom
Old temp	16	16	22	27	27	28	28	29	29
10% kill	15	18	23	27	28	28	28	28	28
90% kill	2	10	15	21	24	25	25	25	25
Pears	Bud Swell	Bud Burst		Tight cluster	First White	Full White	First Bloom	Full Bloom	Post Bloom
Old temp	18	23		24	28	29	29	29	30
10% kill	15	20		24	25	26	27	28	28
90% kill	0	6		15	19	22	23	24	24
Stone Fruit									
Apricots	Bud Swell	Bud Burst	Red Tip	First White	First Bloom	Full Bloom	In the Shuck	Green Fruit	
Old temp	--	23	--	25	--	28	--	31	
10% kill	15	20	22	24	25	27	27	28	
90% kill	--	0	9	14	19	22	24	25	
Peaches	Bud Swell	Calyx Green	Calyx Red	First Pink	First Bloom	Full Bloom	Post Bloom		
Old temp	23	--	--	25	--	27	30		
10% kill	18	21	23	25	26	27	28		
90% kill	1	5	9	15	21	24	25		
European Plums	Bud Swell	Side White	Tip Green	Tight Cluster	First White	First Bloom	Full Bloom	Post Bloom	
Old temp	--	--	--	--	23	27	27	30	
10% kill	14	17	20	24	26	27	28	28	
90% kill	0	3	7	16	22	23	23	23	
Sweet Cherries	Bud Swell	Side Green	Green Tip	Tight Cluster	Open Cluster	First White	First Bloom	Full Bloom	Post Bloom
Old temp	23	23	25	28	28	29	29	29	30
10% kill	17	22	25	26	27	27	28	28	28
90% kill	5	9	14	17	21	24	25	25	25
Tart Cherries	Bud Swell	Side Green	Green Tip	Tight Cluster	Open Cluster	First White	First Bloom	Full Bloom	
10% kill	15	24	26	26	28	28	28	28	
90% kill	0	10	22	24	24	24	24	24	

Old standard temperature represented the critical temperature in Fahrenheit (the lowest temperature that can be endured for 30 minutes without damage). In addition, the chart shows the temperature at which 10 % and 90 % of normal buds will be killed. These numbers were taken from Washington (WSU), and Michigan (MSU) Extension Bulletins. Apple - WSU EB0913, Pears - WSU EB0978, Sweet Cherries - WSU EB1128, Peaches - WSU EB0914, Apricots - WSU EB1240, Tart Cherries - MSU Research. Rpt. 220

Data Compiled by Mark Longstroth MSUE

To contact an expert in your area, visit people.msue.msu.edu, or call 888-MSUE4MI (888-678-3364).