

Treatment schedule	Temperature ( °F)	Time	Directions
T408-a .....	230-249 .....	16 hours .....	Spread soil in layers 0.5 inches in depth to ensure uniform heat penetration.
	250-309 .....	2 hours.	
	310-397 .....	30 minutes.	
	380-429 .....	4 minutes.	
	430-450 .....	2 minutes.	
T412-a .....	248 .....	15 minutes .....	Start timing when the entire mass reaches 248 °F. <sup>1</sup>
T412-b-1 .....	212 .....	15 minutes.	Treat small bales only.
T503-1-4, T503-2-4, T504-1-1, T504-2-1.	212 .....	1 hour .....	
T518-1 .....	170 .....	4.5 hours .....	
T518-2-1 .....	180-200 .....	2 hours.	

<sup>1</sup> A minimum of two temperature probes must be placed in the heat treating equipment in order to determine that all niger seed being treated reaches the target temperature. The treatment temperature must be recorded accurately, precisely, and regularly during treatment. The monitoring equipment must be locked before each treatment begins to prevent tampering. Seed processing equipment must have the capability to divert for retreatment any nontreated seeds or treated seeds that do not meet treatment standards.

**§ 305.26 Khapra beetle treatment schedule for feeds and milled products.**

Feeds and milled products may be treated for khapra beetle using schedule T307-a. The temperature must be 180 °F in any part of the products, or the temperature must be at 150 °F for a total of 7 minutes. All parts of the commodity being moved through or manipulated in the heated area must meet the time and temperature requirements. This treatment must be specifically authorized in each case by the Director of Plant Health Programs, PPQ, APHIS.

**§ 305.27 Forced hot air treatment schedules.**

(a) *T103-a-1.* (1) The temperature probes must be placed into the center of the largest fruit in the load. The number and placement of temperature probes must be approved by APHIS' Center for Plant Health Science and Technology (CPHST) before APHIS can authorize treatment. CPHST grants approval of treatment equipment and facilities through a chamber certification procedure.

(2) APHIS may reject the treatment if the size of an individual fruit exceeds the maximum size authorized by APHIS.

(3) Fruit can be sized before or after the heat treatment. The largest fruit in a load can be identified by either sizing all fruit prior to heating and selecting the largest size class in the load or acquiring fruit of the largest per-

mitted maximum commercial size class.

(4) The fruit containing the temperature probes must be placed inside the hot air chamber at chamber locations specified by APHIS during the chamber certification.

(5) Fruit temperature must be increased within specifications:

(i) The fruit center temperature must be increased to 111.2 °F within 90 minutes or more (minimum approach time is 90 minutes) for all temperature probes.

(ii) The fruit center temperature must be kept at 111.2 °F or hotter for 100 minutes.

(iii) The temperature of the fruit center must be recorded every 2 minutes for the duration of the treatment.

(iv) The total treatment time will vary with the time required to reach 111.2 °F.

(v) Fruit must be cooled after the treatment is completed.

(b) *T103-b-1, T103-d-1, and T103-d-2.*

(1) Temperature sensors must be inserted into the centers of the largest fruits. The number of sensors must be approved in advance by APHIS. Sensors must be physically placed in various parts of the load so that high, middle, and low areas are all represented.

(2) Fruit (placed in open trays, bulk bins, or ventilated boxes) must be loaded into the treatment chamber, and sensors must be attached to the recorder monitor.