UF UNIVERSITY of FLORIDA
IFAS Extension

PI-123

Storage Limitation Statements: Temperature – Herbicides[1]

Frederick M. Fishel[2]

This guide provides information about how temperature affects storage of agricultural herbicides. A table is included that lists many common agricultural herbicides registered for use in Florida, with storage limitation statements.

Introduction

Storage temperature influences the effectiveness and usability of many pesticides. Most labels of liquid pesticides contain specific information on adequate storage temperatures for their products and will generally state a temperature in the 40°F–100°F range. Freezing is not a normal concern for pesticide storage in Florida, but extreme heat is a factor for the entire state.

Freezing temperatures can render a liquid-formulated pesticide useless by causing the active ingredients to separate from its solvents, emulsifiers, and other inert ingredients. The result may be either crystallization or coagulation of the formulation. Some products may be thawed and reused after adequate agitation; their labels will specifically state if this is the case. Because of the ingredients in the formulation, the freezing point of many products may be lower than 32°F.

Heat is the major concern in Florida for pesticide storage problems. Heat can cause some pesticides to volatilize and drift from their containers, especially if containers are not adequately sealed. Flammability is a problem with some pesticides in the presence of heat and/or open flame. For more on this topic, see EDIS publication PI-97 *Pesticide Labeling: Physical or Chemical Hazards* (http://edis.ifas.ufl.edu/pi134).

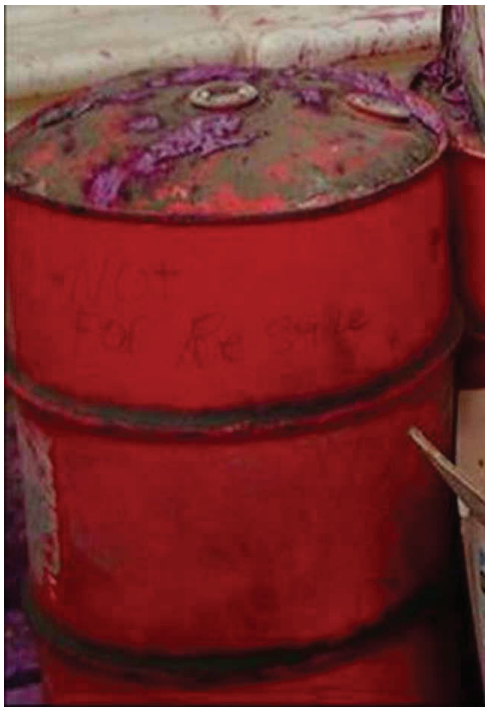

Figure 1. Pesticide drum bulging from extreme heat.

1. This document is PI-123, one of a series of the Pesticide Information Office, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date June 2006. Revised April 2013. Visit the EDIS website at http://edis.ifas.ufl.edu.

2. Frederick M. Fishel, professor, Agronomy Department, and director, Pesticide Information Office; Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.