



February 22, 2019

State of California
Department of Industrial Relations
Comments submitted electronically: rs@dir.ca.gov

SUBJECT: HEAT ILLNESS PREVENTION IN INDOOR PLACES OF EMPLOYMENT COMMENTS ON DISCUSSION DRAFT – JANUARY 29, 2019

The following comments address the proposed draft revisions dated January 29, 2019 for the “Heat Illness Prevention in Indoor Places of Employment.”

First, we want to reaffirm our support of comments submitted by the Chamber of Commerce on February 22, 2019 and incorporate those comments by this reference.

The primary purpose of this submittal is to bring to your attention potential unintended consequences of the draft proposal. Specifically, **section (e)(2)(A)** requires employers to demonstrate that engineering controls are infeasible in achieving “both the temperature and heat index to below 87 degrees Fahrenheit or the temperature to below 82 degrees Fahrenheit where employees wear clothing that restricts heat removal or work in high radiant heat work areas” before employers are allowed to use other control methods. Other related sections may create compliance challenges as well.

In the case of greenhouses (commonly referred to as nurseries), precisely engineered heat, humidity, light levels and ventilation controls are essential infrastructure in growing plants produced for market. (Management of the Greenhouse Environment, Alberta.Ca, Agriculture and Forestry, [https://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/opp2902](https://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/opp2902).) However, these controls by design may not produce the results which the proposal seeks to achieve.

One example of variables making compliance with the proposal highly questionable is evaporative cooling utilized to maintain optimum growing conditions and for employee comfort. However, such cooling may prevent achieving a heat index below 87 degrees. Another example is that the optimal level of air temperature in the greenhouse depends on the photosynthetic activity of the plant in question. (Greenhouse Climate Factors, GHC Bulletin, January 1997, Oregon Institute of Technology.) A third example is that rapid swings in humidity levels can cause significant damage to plants. A 20% swing in relative humidity lasting only a few minutes can potentially result in tissue damage as plants simply can’t adapt fast enough. (How to keep greenhouse conditions optimal for plant growth, Horticulture Daily,

10/15/2018, [www.hortidaily.com/article/9028608/how-to-keep-greenhouse-conditions-optimal-for-plant-growth/.](http://www.hortidaily.com/article/9028608/how-to-keep-greenhouse-conditions-optimal-for-plant-growth/))

Because of the foregoing, we request that an additional Advisory meeting be scheduled to fully evaluate whether the proposal can apply to greenhouses without destroying the purpose for which they exist.

Thank you for your consideration of this request.

Sincerely,



Chris Zanobini, President
California Association of Nurseries
and Garden Centers



Kasey Cronquist, CEO/Ambassador
California Cut Flower Commission