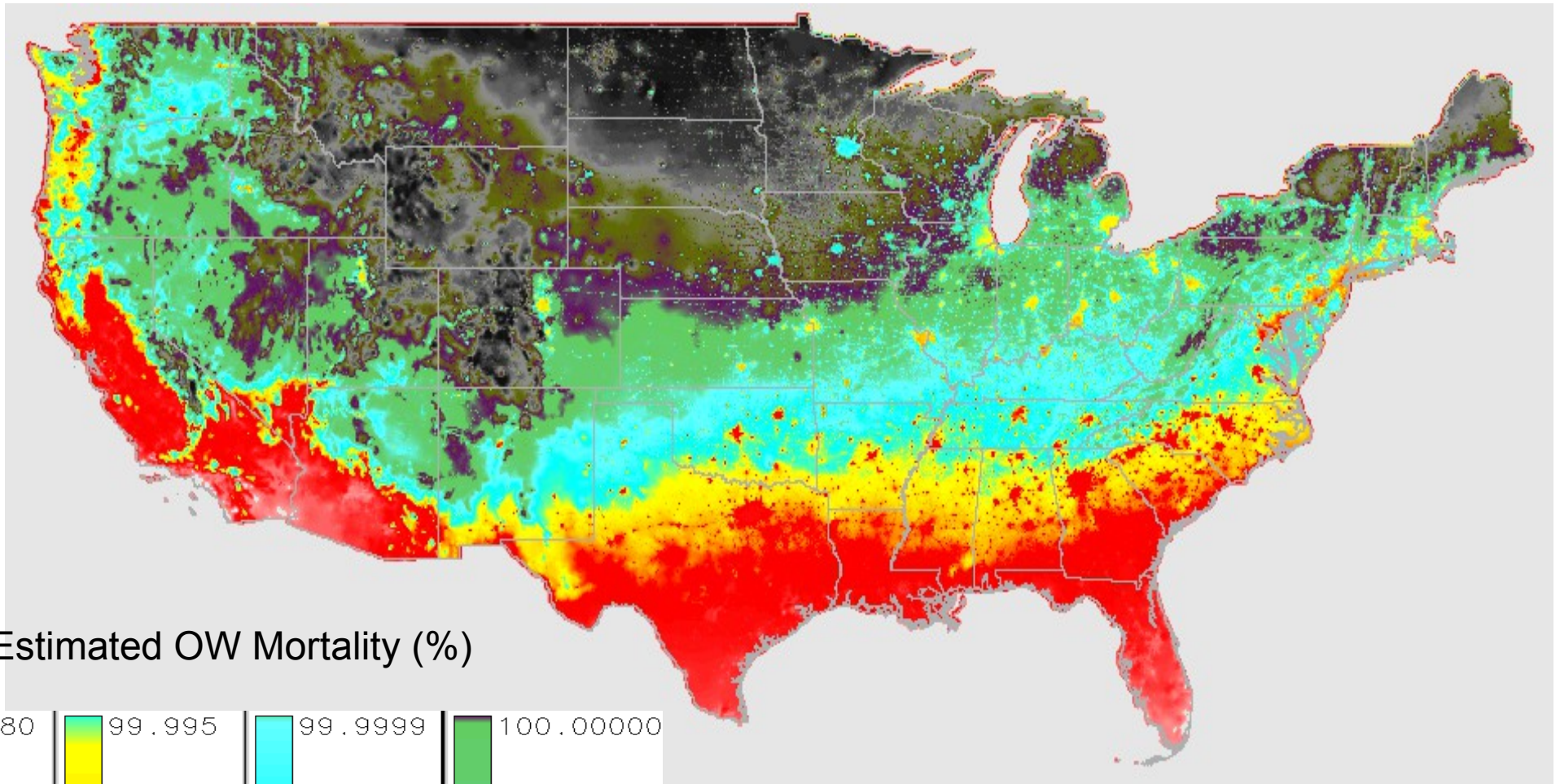
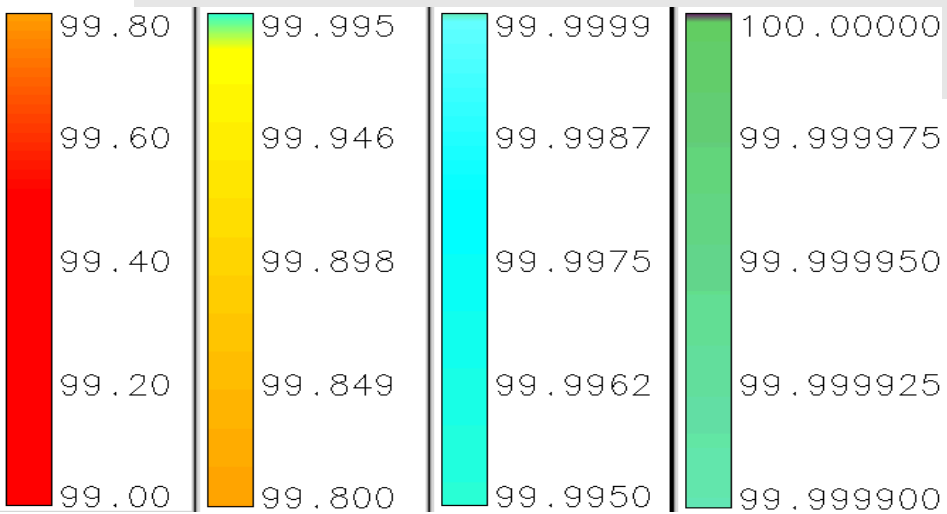


Spotted Wing Drosophila – Estimated Overwintering Mortality Due to Chilling Effects – Nov 15 2009 to Mar 31 2010 With Rf (human created refuge factor)



Estimated OW Mortality (%)



Legend interpretation:

Red areas: 25 to 100 out of 10,000 survive

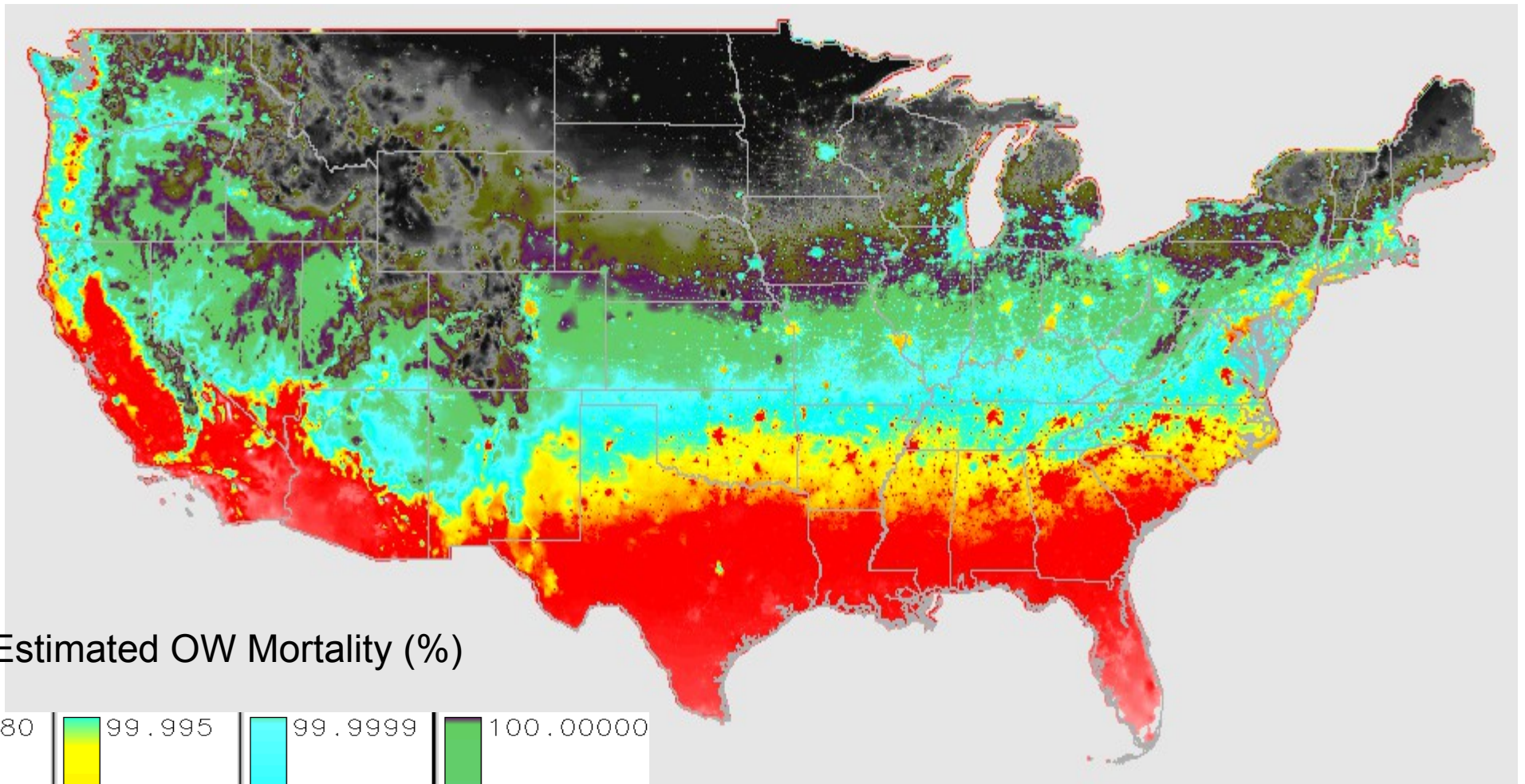
Yellow areas: 2 to 10 out of 10,000 survive

Blue areas: 1 to 5 out of 1 million survive

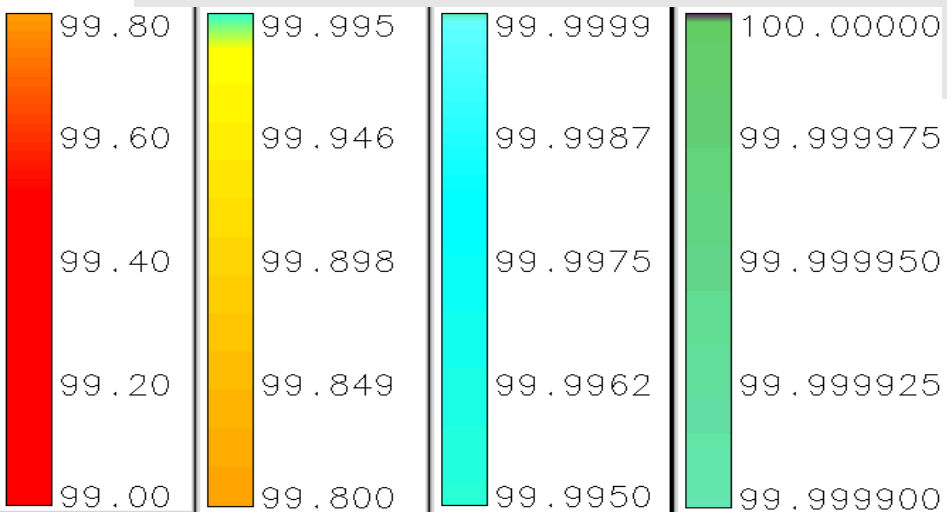
Putty green areas: 1 to 10 out of 10 million survive

Darker areas: less than 1 out of 10 million survive

Spotted Wing Drosophila – Estimated Overwintering Mortality Due to Chilling Effects – Nov 15 2010 to Mar 31 2011 With Rf (human created refuge factor)



Estimated OW Mortality (%)



Legend interpretation:

Red areas: 25 to 100 out of 10,000 survive

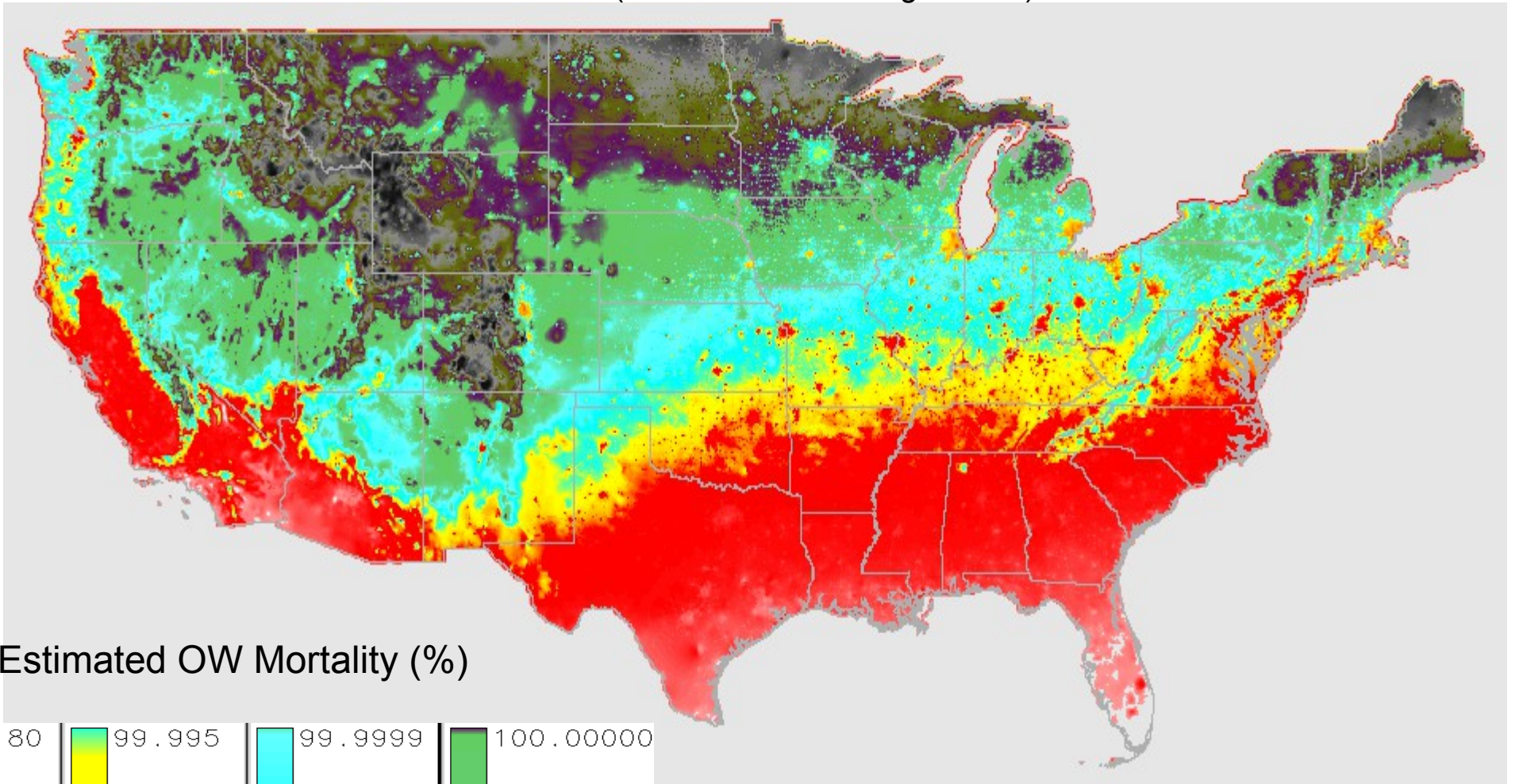
Yellow areas: 2 to 10 out of 10,000 survive

Blue areas: 1 to 5 out of 1 million survive

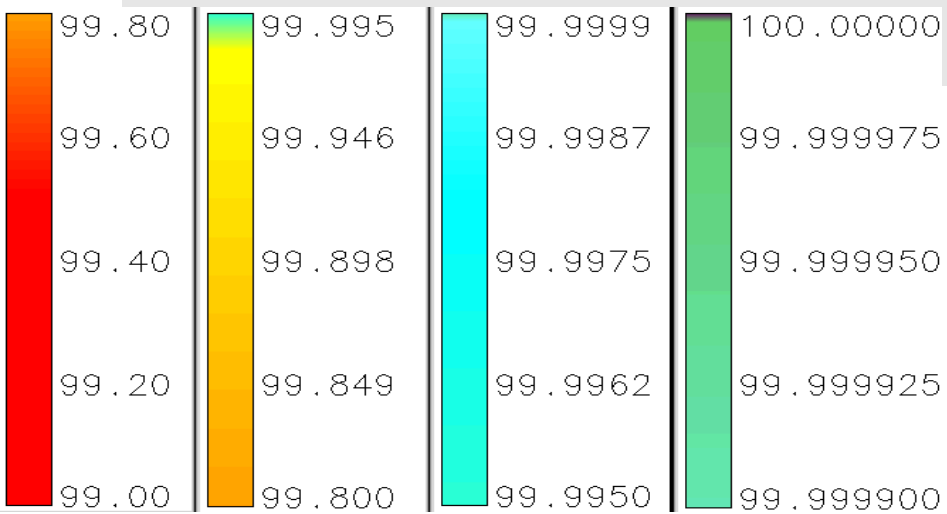
Putty green areas: 1 to 10 out of 10 million survive

Darker areas: less than 1 out of 10 million survive

Spotted Wing Drosophila – Estimated Overwintering Mortality Due to Chilling Effects – Nov 15 2011 to Mar 31 2012 With Rf (human created refuge factor)



Estimated OW Mortality (%)



Legend interpretation:

Red areas: 25 to 100 out of 10,000 survive

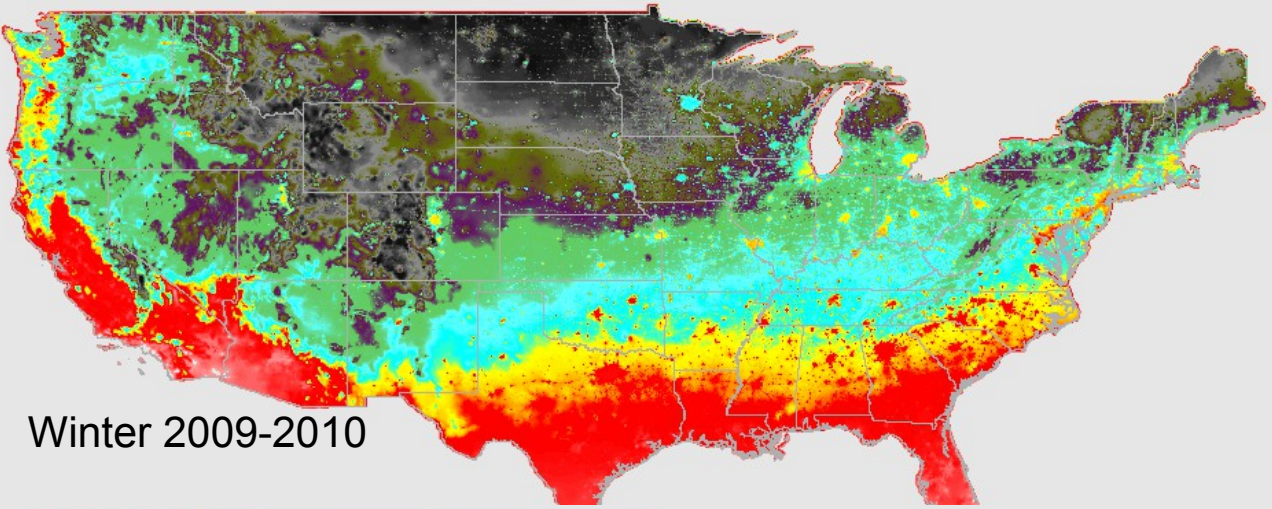
Yellow areas: 2 to 10 out of 10,000 survive

Blue areas: 1 to 5 out of 1 million survive

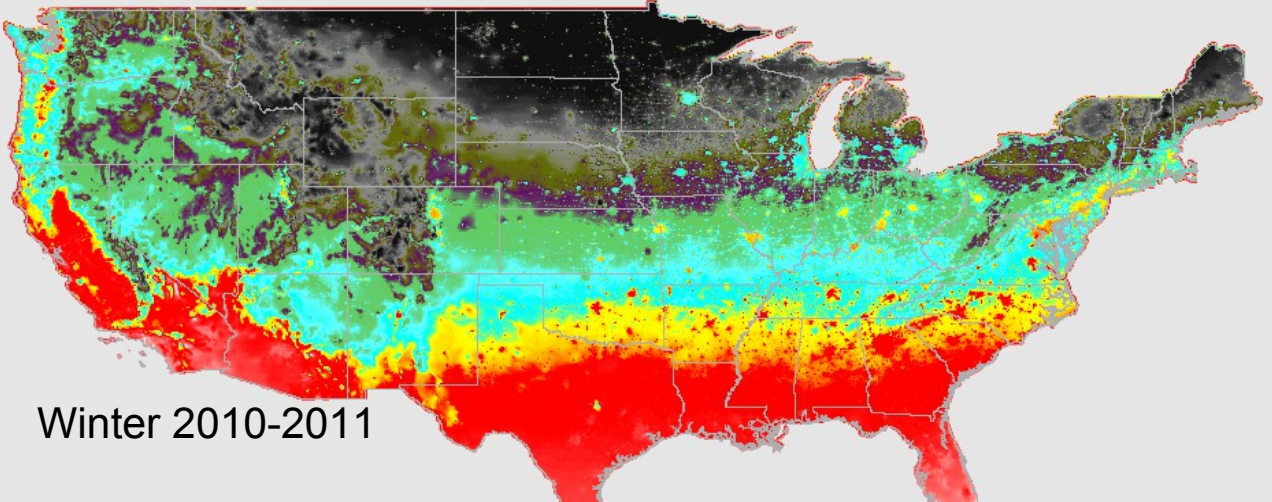
Putty green areas: 1 to 10 out of 10 million survive

Darker areas: less than 1 out of 10 million survive

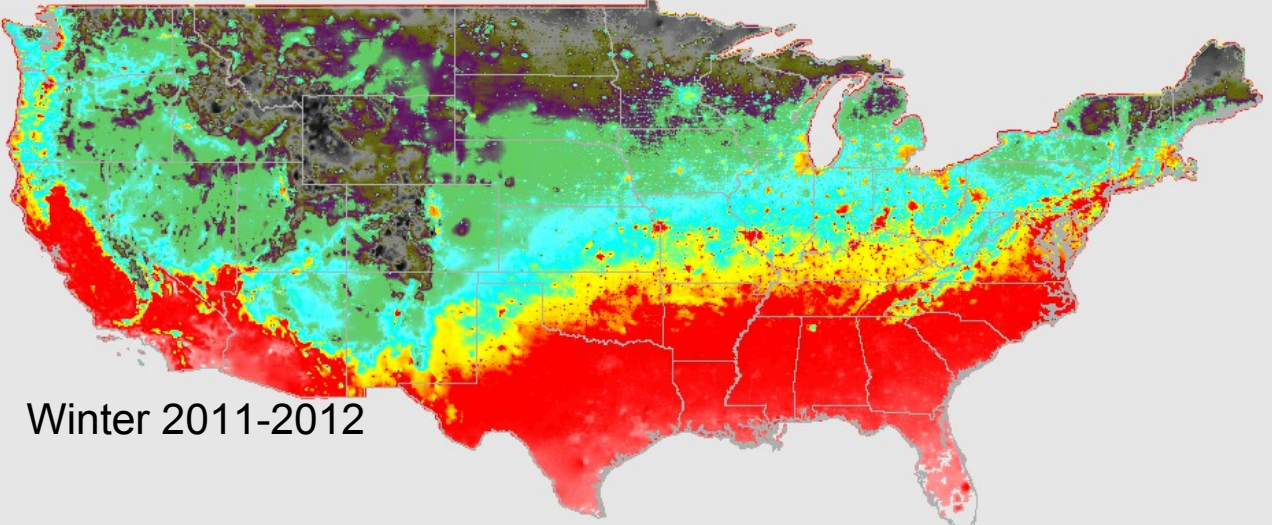
Spotted Wing Drosophila Estimated Overwintering Mortality w/chilling units and human-caused refuges



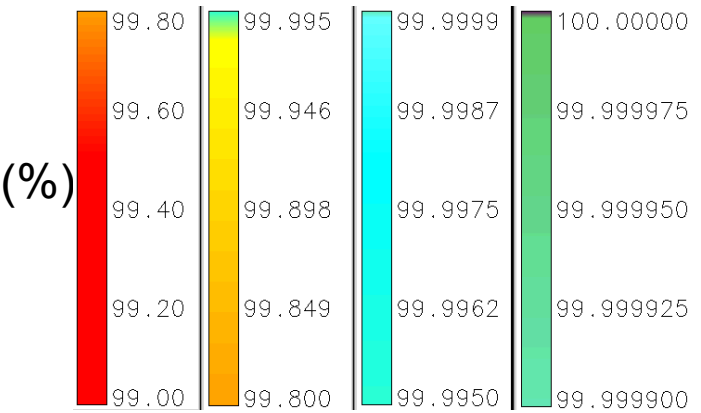
Winter 2009-2010



Winter 2010-2011



Winter 2011-2012

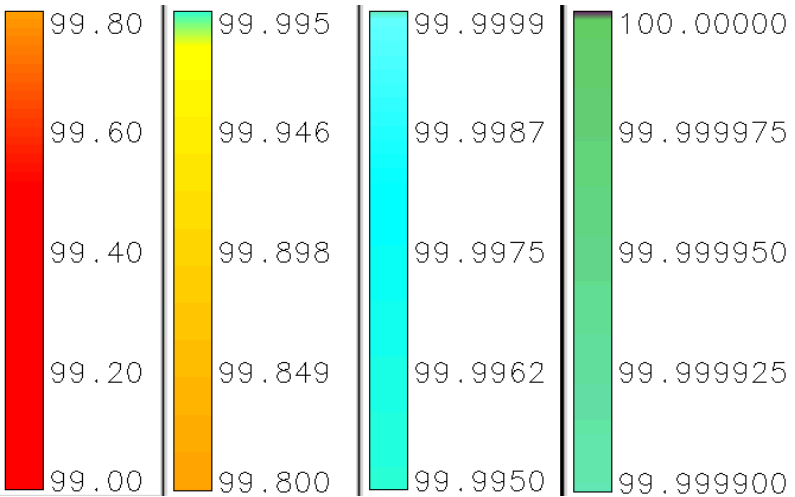


Legend interpretation: # surviving
 Red areas: 25 to 100 out of 10,000
 Yellow areas: 2 to 10 out of 10,000
 Blue areas: 1 to 5 out of 1 million
 Putty green areas: 1 to 10 out of 10 mill.
 Darker areas: less than 1 out of 10 mill.

3 years of increasingly
milder winters
(especially in Midwest
and Southeast)

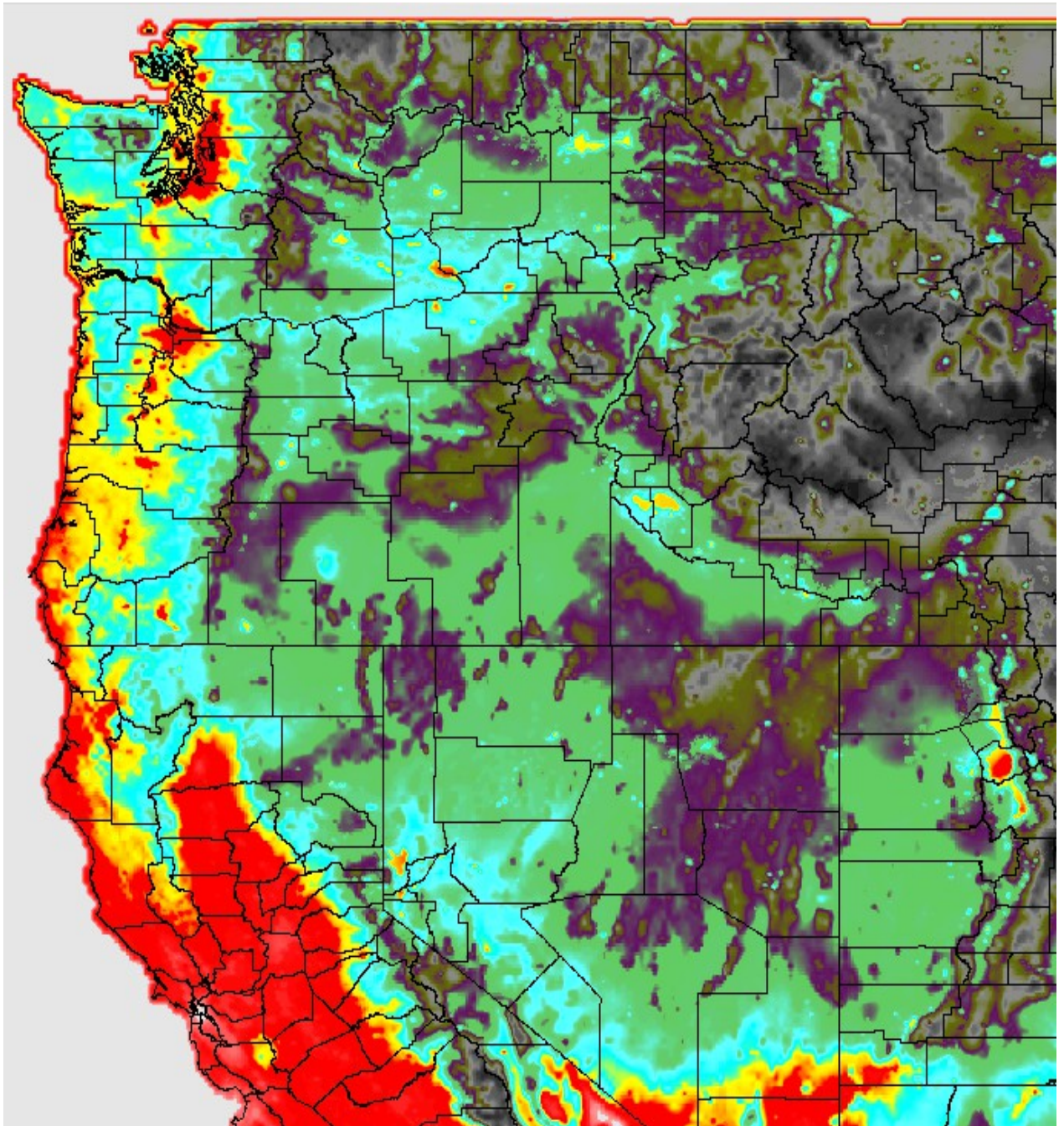
Spotted Wing Drosophila – Estimated Overwintering Mortality Due to Chilling Effects – 1981-2010 Normals (Nov 15 - Mar 31) NW US

Estimated OW Mortality (%)



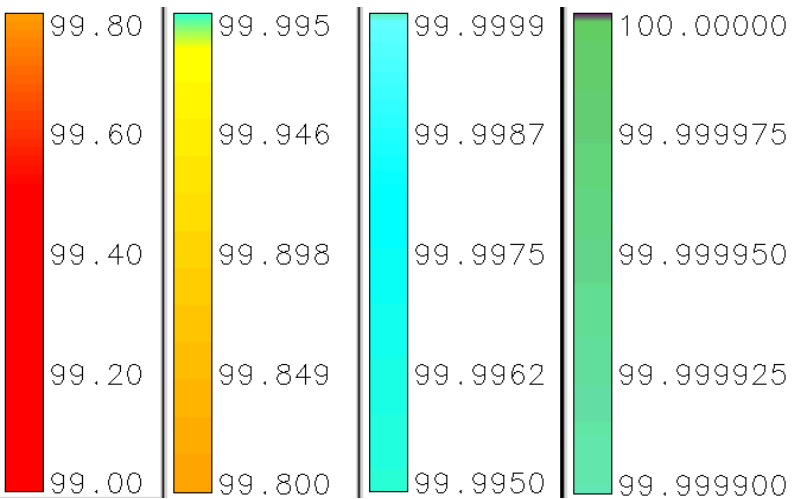
Legend interpretation: # surviving

- Red areas: 25 to 100 out of 10,000
- Yellow areas: 2 to 10 out of 10,000
- Blue areas: 1 to 5 out of 1 million
- Putty green areas: 1 to 10 out of 10 mill.
- Darker areas: less than 1 out of 10 mill.



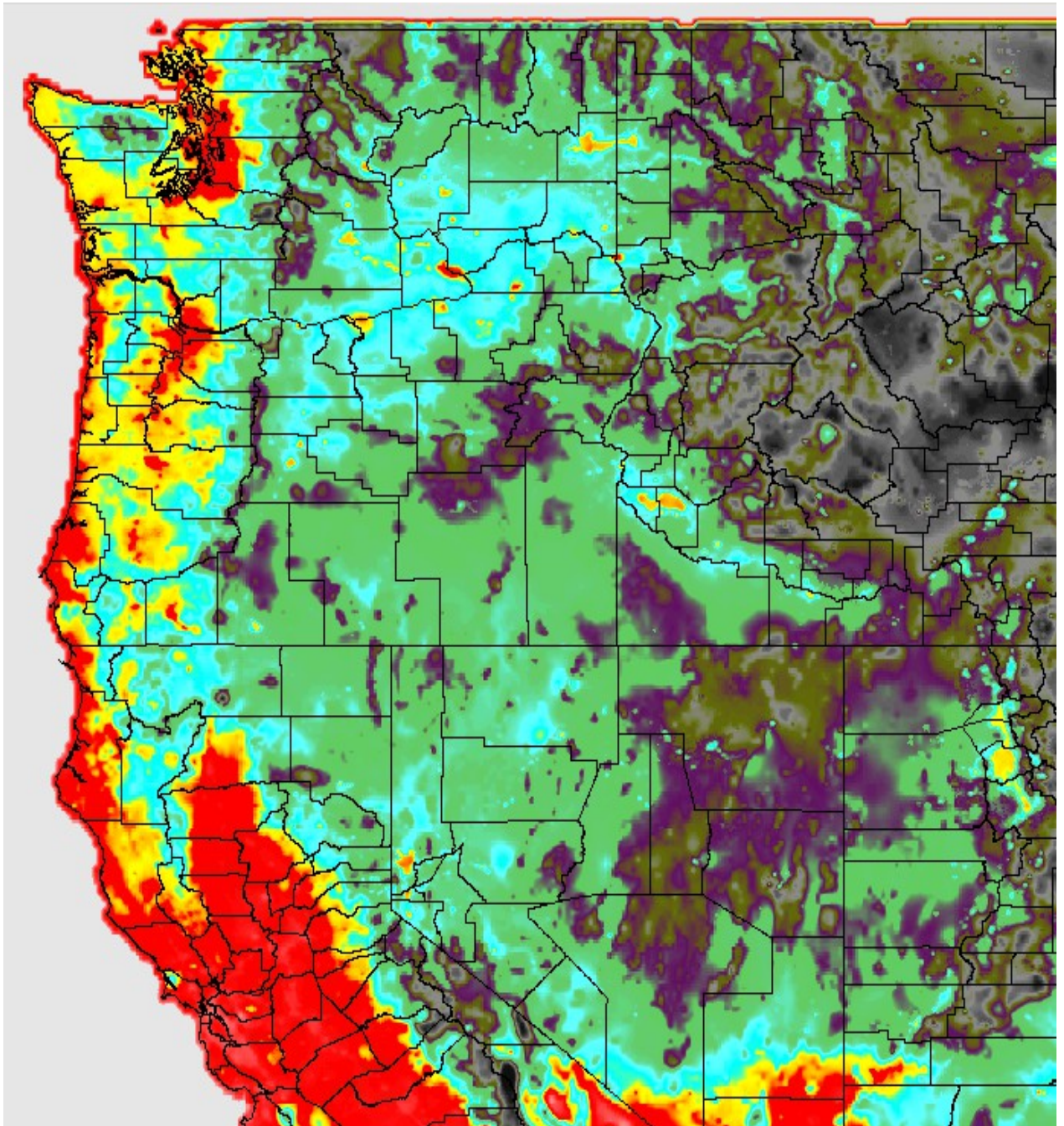
Spotted Wing Drosophila – Estimated Overwintering Mortality Due to Chilling Effects – Nov 15 2009 to Mar 31 2010 NW US

Estimated OW Mortality (%)



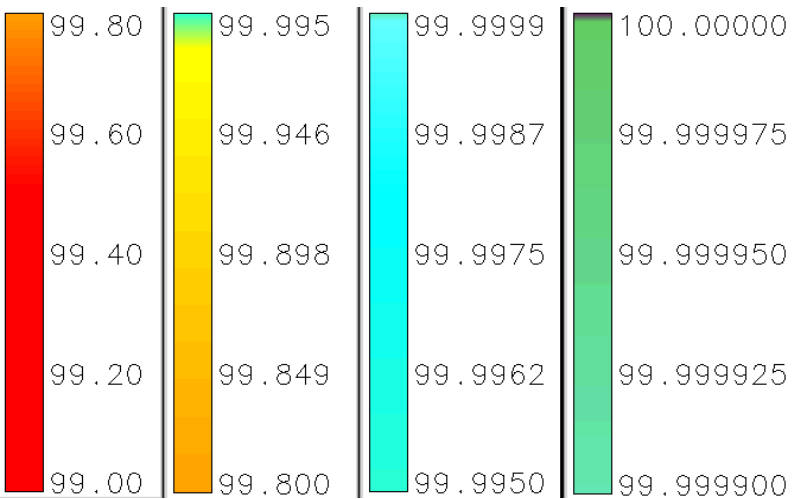
Legend interpretation: # surviving

- Red areas: 25 to 100 out of 10,000
- Yellow areas: 2 to 10 out of 10,000
- Blue areas: 1 to 5 out of 1 million
- Putty green areas: 1 to 10 out of 10 mill.
- Darker areas: less than 1 out of 10 mill.



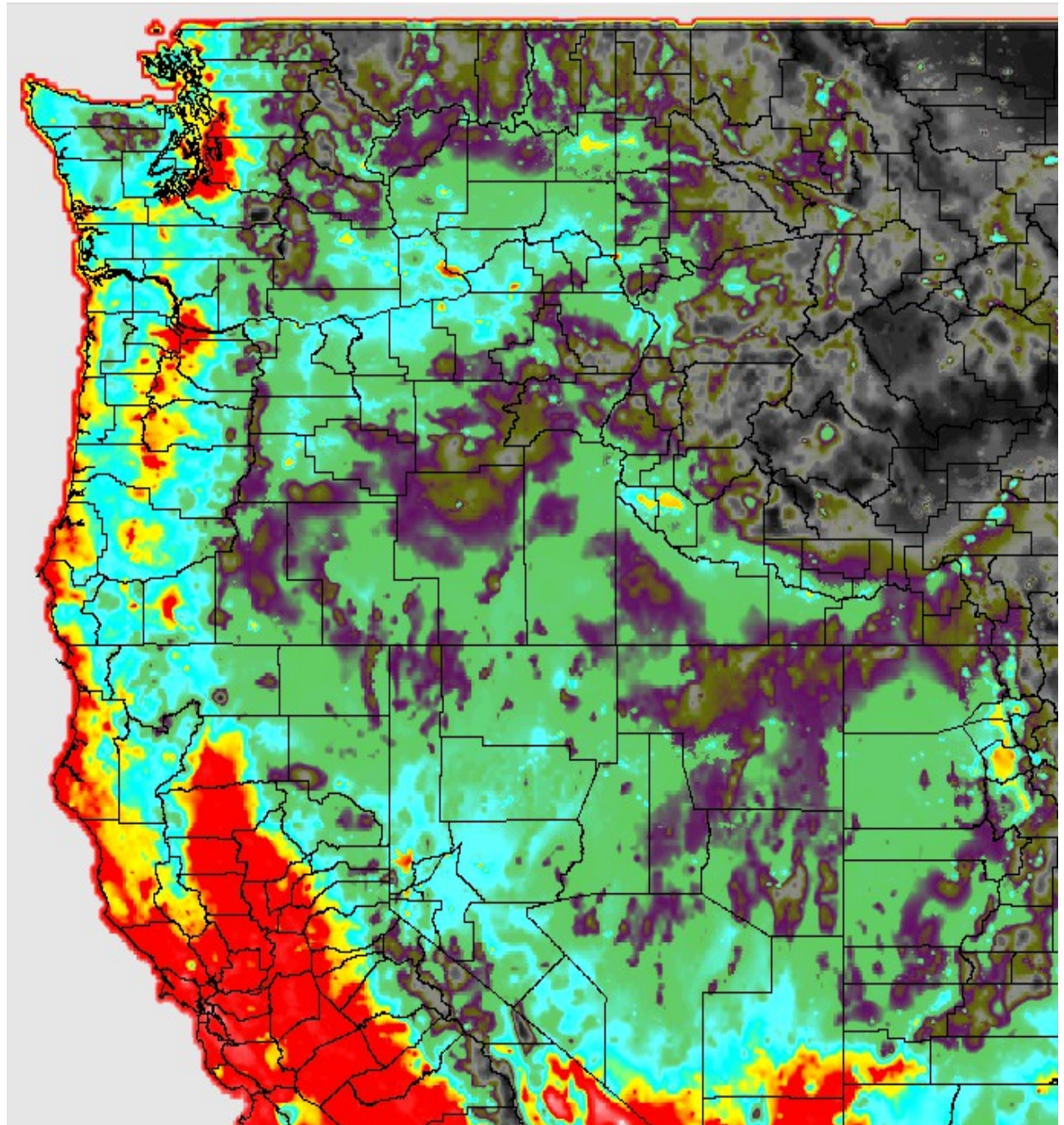
Spotted Wing Drosophila – Estimated Overwintering Mortality Due to Chilling Effects – Nov 15 2010 to Mar 31 2011 NW US

Estimated OW Mortality (%)



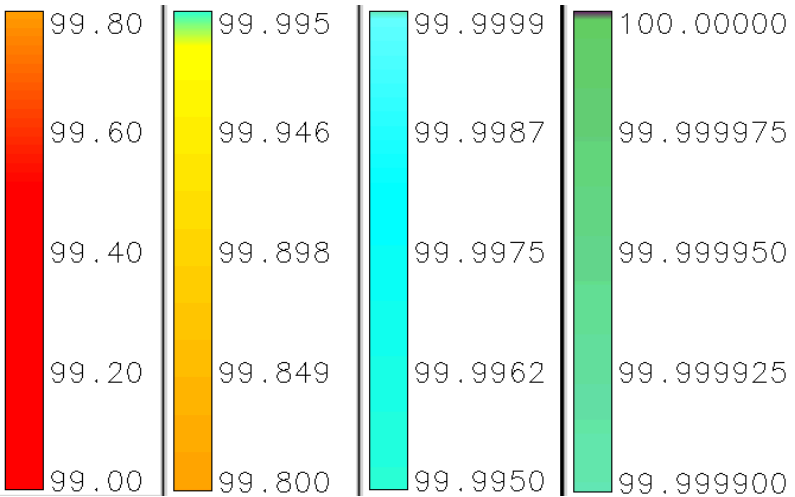
Legend interpretation: # surviving

- Red areas: 25 to 100 out of 10,000
- Yellow areas: 2 to 10 out of 10,000
- Blue areas: 1 to 5 out of 1 million
- Putty green areas: 1 to 10 out of 10 mill.
- Darker areas: less than 1 out of 10 mill.



Spotted Wing Drosophila – Estimated Overwintering Mortality Due to Chilling Effects – Nov 15 2011 to Mar 31 2012 NW US

Estimated OW Mortality (%)



Legend interpretation: # surviving

- Red areas: 25 to 100 out of 10,000
- Yellow areas: 2 to 10 out of 10,000
- Blue areas: 1 to 5 out of 1 million
- Putty green areas: 1 to 10 out of 10 mill.
- Darker areas: less than 1 out of 10 mill.

