**SODmap mobile: a quick guide**

SODmap mobile is a free App for iPhone and Droid that allows to view the distribution of Sudden Oak Death using a smartphone or an iPad. The app interfaces with the SODmap database and allows to visualize both SOD-positive and SOD-negative trees, based on laboratory results. The App automatically updates the reference database when new points are added to the SODmap. Stream samples are not included in the SODmap mobile.

Upon turning on the App, the opening screen will shortly appear. It will automatically move to the map in a few seconds. The default setting for the map is the satellite view which is optimized for clear viewing of the symbols and icons. By pressing the “settings” button, however, it is possible to change to a hybrid map (e.g. a satellite map with major streets and localities superimposed), or to a standard map.

The map of the globe should open on North America. When viewing at the SODmap at a regional scale level, individual points will not be visible. Instead, white numbers will indicate major clusters of trees sampled in each area. The number itself represents the actual number of samples and it is positioned approximately in the central point of the cluster of contiguous sampled trees. As one enlarges the view, major clusters of sampled trees will split into smaller clusters: again the numbers will be positioned in the center of the sample area each number represents. When the scale allows for it, the actual individual trees will be visible as drop pins. Red drop pins indicate SOD positive trees, while green ones indicate trees that were sampled but were negative for *Phytophthora ramorum*, aka the SOD pathogen, when tested in the laboratory. By touching the drop pin, the species of the tree sampled will appear in a pop up box. Additionally, the dialog box will also indicate whether the tree was sampled before or after the 2007-2009 drought. The map allows to determine number, location, and infection status of trees while in the field. A blue point indicates the position of the user, making it easy to locate any trees of interest present on the SODmap. It is also possible to use SODmap to determine Longitude and Latitude of the user, by pressing the risk button.

A second function of the SODmap mobile, is to estimate risk of oak infection at the physical location of the user. Risk is based on proximity of infected trees to the user. The risk level at the location of the user can be determined by pushing the “risk” button.

If a positive tree is within 200 m from the user, the risk is high, and a high risk warning sign will compare when pushing the risk button.

If a positive tree is between 200 m and 1000 m the risk is moderate. If at least four trees were sampled within 1000m , and all were negative, the risk is low to nil. If less than four trees were sampled in a 1000 m radius, then a warning of insufficient sampling will appear.

The risk warning will also report the number of trees sampled within 1000m and when the positive trees were sampled. As the number of trees increases, the confidence in the risk rating increases.

For warmer inland areas, confidence is higher if the positive trees were sampled post-drought, as occasionally outbreaks will disappear or shift during a drought in these locations that are less favorable for pathogen establishment.

At times, especially if reception is poor, the App will show the risk rating of the previous location. Ensure the lat. and long. have changed since the last risk assessment: that indicates the risk rating is current.

**Update on SOD treatments**

**Sanitation**

1. Tools cleaning: most important is to remove all visible organic matter and debris, then clean with either alcohol, 10% bleach solution, or Lysol
2. Infected plant material: leave on premises as much as possible: avoid piling or tarping, and shady areas. Leave in sun and try to dry as fast as possible. Move plant material only after drying it
3. Infected plant material: compost

**Correct practices**

1. Avoid planting oaks and rhododendrons or oaks and bay laurels next to each other
2. Avoid overhead irrigation
3. Minimize movement of plant material and soil in the rainy season
4. Avoid pruning of large branches or of basal stems during rainy season. Try to do most “yard” work in the late summer or fall. Four months are needed for pruning cut to seal

**Protecting your oaks**

1. Pick significant oaks: aesthetic value, personal attachment, hazard tree
2. For oaks up to 80 cm DBH remove small and medium bay laurel for a radius of 10 m around selected trees. If large bays are present, may be worth to prune portion of large branches that fall within the 10 m buffer zone
3. For oaks larger than 80 cm DBH, increase bay-free buffer to 15 or 20 m
4. For best bay removal, apply herbicide when trees are up (hack and squirt or use a spreader), then cut down a month later
5. Apply on the bark once a year, in the Fall, Phosphonate with Pentrabark

**Work in progress**

1. Re-determine volumes and concentration of active ingredient (Phosphonate) for injections in order to enhance efficacy and avoid wood phytotoxicity. Previously recommended dosages and volumes caused wood damage and as a result had reduced efficacy
2. Reduce amount of Pentrabark for bark applications
3. Work on soil amendments: to a)- enhance effect of phosphonate applied on bark or via injection: b)- apply phosphonate to soil
4. Lesion scribing: is removal of lesions from trees, by scraping the lesionedcambium, effective in eliminating infection?