

## 2020 CALIFORNIA AVOCADO ACREAGE UPDATE USING REMOTE SENSING TECHNOLOGY

The California Avocado Commission's crop estimating team in conjunction with Land IQ uses the latest in remote sensing techniques to assess avocado acreage in production. As technology continues to advance refinements in our fourth generation of remote sensing techniques were applied to satellite imagery collected during spring and summer months. The imagery processing techniques include; segmentation into homogenous polygons, retention of tree crop polygons, calculation of average crop canopy moisture and vegetation indices, analysis of change maps from previous inventories, and classification of avocado groves into four categories; producing, topped/stumped, new/young, and abandoned. Aerial imagery (for a real-world view), and satellite imagery (for spectral and temporal data) are integrated into previously classified avocado acreage and analyzed for current condition of California avocado acreage statewide.

| 2020 Avocado Acreage Classification Summary |                    |                    |                         |                  |
|---|--------------------|--------------------|-------------------------|------------------|
| County                                      | Producing<br>Acres | New/Young<br>Acres | Topped/Stumped<br>Acres | Planted<br>Acres |
| San Diego                                   | 14,421             | 783                | 1,284                   | 16,488           |
| Riverside                                   | 4,335              | 446                | 264                     | 5,046            |
| Ventura                                     | 17,056             | 1,825              | 874                     | 19,754           |
| Santa Barbara                               | 5,828              | 629                | 284                     | 6,741            |
| San Luis Obispo                             | 3,894              | 82                 | 67                      | 4,043            |
| Five County Total                           | 45,534             | 3,766              | 2,772                   | 52,072           |
| Minor Counties                              |                    |                    |                         |                  |
| Orange                                      | 990                | 91                 | 11                      | 1,092            |
| San Bernardino                              | 467                | 22                 | 3                       | 492              |
| Monterey                                    | 222                | 0                  | 7                       | 230              |
| Tulare                                      | 104                | 2                  | 1                       | 106              |
| Los Angeles                                 | 14                 | 3                  | 0                       | 17               |
| Fresno                                      | 1                  | 3                  | 0                       | 4                |
| Kern  | 3                  | 0                  | 0                       | 3                |
| Minor Counties Total                        | 1,800              | 121                | 23                      | 1,945            |
| GRAND TOTAL                                 | 47,334             | 3,887              | 2,795                   | 54,017           |

