Thank you Mr. Chairman, Ranking Member Peterson, and members of the committee for this opportunity to appear before you. I am Kevin Murphy, the Chief Executive Officer of Driscoll’s.

With over 25 years in the produce industry, I am honored to address the topic of technology and innovation in specialty crops. I have been very fortunate that my career has spanned both the fruit and vegetable industries, and more importantly, because of the companies that I have worked for, I have been at the heart of much of the innovation during this time period. Fresh Express, where I worked earlier in my career, pioneered the packaged salad category, and Driscoll’s has led innovation in the berry industry for many decades. Beyond my personal career experience, I am also a member of the board of directors of Western Growers, and Driscoll’s has leadership roles in Produce Marketing Association, United Fresh Fruit Association, and the California Strawberry Commission.

Driscoll’s is a family-owned company headquartered along the central coast of California, where the families that began and continue to own Driscoll’s have farmed berries for over 100 years. Through traditional plant breeding techniques, the company develops and markets fresh strawberries, raspberries, blueberries, and blackberries that independent family farmers have produced with Driscoll’s patented berry varieties. In addition to California, we have independent growers in Washington, Oregon, Florida, New Jersey, and Georgia. Today, Driscoll’s represents roughly 30% of the total US berry industry and 64% of the organic segment. By dollar value, berries are the number one selling all fruit or vegetable item in the retail segment.

This hearing comes at a critical time for U.S. specialty crops. As we scan ahead, there are several powerful forces at play that will have a dramatic effect on fruit and vegetable production in the future:

- Too much food waste in the system. Roughly 30% of all berries produced are not consumed. The cost of this waste is ultimately being passed to consumers and will, if unchecked, cause our products to become overpriced and less desirable. Innovation around varieties, supply chain, better production technologies, in conjunction with education, will reduce this waste.
- The combined effects of climate change with limited resources of land, labor, and water. Water and labor are the largest issues facing the industry today and are the primary drivers of the need for technology and innovation. Sustained drought conditions make more efficient use of water an absolute necessity while the lack of farm labor threatens the very future of our industry.
- The push to eliminate fumigants and pesticides, driven by societal and consumer concerns related to their perceived impact on health and the environment. Part of the rise in organic production (11% per annum) is consumers responding to these issues.
- Continued food safety concerns with products exposed to the elements. Specialty crop block grants, funded through the farm bill, are particularly important for food safety research and initiatives. The Center for Produce Safety (CPS) matches block grant funds with industry money
for the advancement of vegetable and fruit food safety research. It has been a model of partnership -- over the past 10 years, CPS has invested $20 million into 120 projects at 37 institutions in four countries.

- Incorporation of new technologies already in use in adjacent industries. In future years, we will see an increased migration to automation, big data, and visioning systems, along with other innovations within the agricultural sector.

The result of all these forces will be a more pronounced movement toward more precise, controlled and automated environments. This will require technology and innovation at a pace and scale unseen in our industry to date. The question is not “if” this will happen but “when” and “how”.

In my humble opinion, the next farm bill should prioritize research that addresses the issues described above with a special emphasis on water and labor. There is a great need to accelerate innovation through research programs, public-private partnerships, and aggregated efforts, and I applaud the formation of the Congressional Agricultural Research Caucus that Representatives Davis and Panetta – my home congressman – lead.

At Driscoll’s, by working with our growers and with industry partners, we are continuing on a path of innovation and technology. The following are examples of that effort:

- Increasingly, we will grow our berries in containers rather than directly in the ground. Through substrate systems growers will have better control over the root-zone conditions, save water, and have greater flexibility to customize soil. These container techniques are common in Europe and other parts of the world and are quickly coming here. Another type of container grower method is to raise the containers to “table tops” so that harvesters can pick strawberries standing up. Additionally, container growing is an example of an innovation that is good for both the farmer and the farmworker.

- We are also exploring mechanized harvesting. With mechanized harvesting, a robotic system uses visual systems to identify when a berry is ready to be picked, and then a mechanized arm snips the fruit and gently moves it from the field to inspection and packaging. For the first time, advances in visual systems that can quickly and accurately assess if a berry is ripe are making mechanized harvesting a reality.

- We are addressing water shortages. Nearly 10 years ago, our community recognized that without significant change, salt water intrusion into our acquirers along the Pacific coast would worsen to the point that we would no longer grow in areas ideal for berry production. Once again, innovation and technology play key roles. To better steward this resource, stakeholders in the Pajaro Valley on California’s central coast have gathered to address the imbalance of water supply and demand through individual and collaborative action. Through this partnership, a wireless irrigation network was created to make it more cost effective for growers to use soil sensors. These sensors help growers to irrigate more efficiently and to understand the actual amount of water their crops need in order to grow.

- We worked with the Natural Resource Conservation Service and other stakeholders to create a privately managed aquifer recharge basin in California’s Santa Cruz County that provide storage for collection of storm water runoff and replenishment of groundwater.

- We are innovating with regard to organic farming practices. After investing over seven years in researching the viability of providing organically grown strawberry starter plants that are
disease and pest free for our growers, we announced a broad expansion of organic nursery plant production and are currently the only brand with an organic strawberry nursery certified by the California Certified Organic Farmers.

While traditionally Driscoll’s has funded its development of unique berry varieties and specialized production systems and will continue to do that in the future, we also recognize that these challenges are larger than one company. Simply put, the size of the challenges demand a different, more collaborative, and broader approach. We have invested in technology accelerators including the Thrive Accelerator, which is part of Western Growers’ Center for Innovation and Technology. The Thrive Accelerator is a technology incubator focused on agricultural innovations in water quality, water use, labor savings, and a sustainable workforce. We have also invested in other accelerators in order to combine adjacent technologies with an agricultural focus. Within agriculture as a whole, agtech investments have doubled over the last three years with a particular focus on the use of the Internet, sensing technologies, robotics, and mechanization.

Finally, as a community-based business, we look to bring innovation to our communities to address local needs. Innovation here takes different forms but is no less important. Driscoll’s, along with our local Agricultural Leadership Council, worked with health providers to create Indigenous Interpreting + that provides translation services for farmworkers who speak only Mixtec or other indigenous languages. We are an active part of Hartnell College’s Farmworker Education and Advancement Program, the Salinas school’s groundbreaking effort to provide to farmworkers training in agricultural topics that will increase their upward mobility within the agricultural sector. And one of our growers, Reiter Affiliated Companies, created a program called Sembrando Salud to address wellness issues in the farmworker community. Within agriculture, more philanthropic dollars are being provided to solve for local issues such as housing, medical care, and child care services. Co-investment opportunities with growers, foundations, NGOs, customers, and other industries are being prioritized to help bring about collaborative innovation.

All of these innovations require that we stay engaged; collaboration and investment are critical. From new production techniques, to packaging, to better connecting farmers and consumers, the future will be very different from the past. Like many in produce, we are committed to meeting the issues we face. As this committee drafts the next farm bill, it must carefully consider how to encourage innovation in light of the existing efforts of the private sector. We cannot afford to have our efforts slowed by well-intended but bureaucratic solutions that result in less investment and less innovation. The challenges are too great and the imperatives too near.

Thank you for this opportunity to address you today. I welcome any questions you may have.