productive agricultural land. This should include those that can be produced on farms and ranches, e.g., biomass, methane from manure, that can reduce lower greenhouse gas emissions. The task force should also document the economic benefits and costs of the substitution of renewable inputs; and identify the most significant obstacles to the reduction of fossil sources and the adoption of renewable energy sources. Based on this information, the task force should devise a practical strategy for achieving the maximum feasible substitution of renewable for fossil-derived inputs used by agriculture. This strategy should take full advantage of the 25 x 25 renewable energy initiative.

Responsible Ag Vision Subcommittee Co-Chairs
Paul Martin, Western United Dairymen
Eric Holst, Environmental Defense Fund

9
Assure Agricultural Adaptation to Climate Change

Few sectors of the California economy will be as affected by a changing global climate as agriculture. Among the potential climate-related phenomena that could threaten agricultural production are further reductions in water supplies, increases in plant heat stress, decreases in nighttime cooling (needed to break dormancy in tree crops) and shifts in pollinator life cycles.

In California, agricultural and forest production release each of the three main greenhouse gases: carbon dioxide, methane, and nitrous oxide, accounting for about six percent of total state greenhouse gas (GHG) emissions. Agriculture can help avoid disruptive impacts of climate change by reducing its GHG emissions and by sequestering carbon. At the same time, it must also begin to develop strategies to enable producers to adapt to changing conditions that are most likely to occur under probable climate change scenarios.

Objective

- Assure that all sectors of California agriculture can adapt to the most likely climate-related changes in seasonal weather, water supply, pests and diseases, and other factors affecting agricultural production

Immediate Action Endorsed by the State Board of Food & Agriculture

9A The State Board should ask the UC-ANR to survey existing studies, on-going research, projects and other practical steps being taken to assess the potential impact of climate change on California agriculture; to determine the most significant likely impacts and propose strategies to help agriculture adapt to and benefit from these changes.

Responsible Ag Vision Subcommittee Co-Chairs
Emily Rooney, Agriculture Council of California
Ashley Boren, Sustainable Conservation & State Board
A.G. Kawamura, Secretary of Food & Agriculture