STRESS OXIDATIVE RESEARCH APPLICATION: Agriculture

We often do not think about the oxidative stress effect on food crops or animals. Nonetheless, it is a real phenomenon that researchers are actively investigating in order to devise methods producers can use to lessen the detrimental effects that oxidative stress can have on crop sustainability and yield, as well as herd health. Recent studies have shown that heat stress leads to oxidative stress. As such some researchers are looking at oxidative stress biomarkers as a convenient way to assess crop and herd health. Beyond the ramifications of assessment, ameliorating conditions of oxidative stress in agriculture may lead to increased levels of food production and profitability.

Below is a sampling of research related to Agriculture that is being done using NWLSS™ products.

- Changes of serum myeloperoxidase and nitric oxide in the early stage of Edwardsiella ictaluri infection in channel catfish, Ictalurus punctatus (Rafinesque)

- Effect of Aspergillus oryzae-Challenged Germination on Soybean Isoflavone Content and Antioxidant Activity

- Effect of drought and combined drought and heat stress on polyamine metabolism in proline-over-producing tobacco plants