



## The Almond the Whole Almond and Nothing but the Almond Well the Tree too MP3

**Rod Bain** [00:00:00] Sub commodity marketing orders with USDA oversight are not just involved in the area of promotion, research plays an important part of the continued growth in markets it uses for commodities covered under these marketing orders. Case in point, the California Almond Board and research over two decades ago that associated this tree nut as a source, a model unsaturated, heart healthy fats.

**Daren Williams** [00:00:23] Almonds were always seen as a good ingredient in foods, they're very shelf stable. They hold up really well and chocolates and things that we think of where you find almonds. But that's when really almond burst on the scene as a healthy snack item.

**Rod Bain** [00:00:36] Yet, as Daren Williams of the Almond board adds...

**Daren Williams** [00:00:39] Clearly nutrition research was a very important part of that. We also do a lot of production research and research around how to improve water use efficiency. Water use is the number one issue that we're going to face in the future of producing food to feed a growing world population. No doubt about it. And it takes water to grow every crop. So how we use out water and using that water to get the most value from it before we return it to the water cycle is probably the number one area of focus.

**Rod Bain** [00:01:05] The study of water uses, and management is just one example of research designed to make the Almond industry, even the almond nut and tree itself, sustainable.

**Daren Williams** [00:01:14] How to utilize everything that we grow in that orchard. We like to talk about producing for crops per drop of water.

**Rod Bain** [00:01:21] So providing this breakdown...

**Daren Williams** [00:01:23] We don't only produce the kernel that you eat, but we also produce the shell that that's encased in, which is used in livestock bedding and has potential uses in recycled plastics. Then there's also the whole or the fruity part of the almond that's around the shell and their sugars in there that right now are used a lot in cattle feed in the dairy industry in California. But there's some potential to use those sugars in different food applications.

**Rod Bain** [00:01:46] And as for the tree itself...

**Daren Williams** [00:01:48] When the orchard ends its productive lifecycle after about 25 years, you can take that entire tree and chop it up and reincorporate it into the soil or even use it to make cellulosic ethanol, which is an exciting kind of new area for the use of that woody biomass.

**Rod Bain** [00:02:03] Williams reiterated that such advances do not occur unless there is research and collaboration involved.

**Rod Bain** [00:02:09] The research has to be done to show that it works, that it's beneficial to the grower as well as to an end user. And the Almond board of California funds a lot of

that research cooperation with researchers at UC Davis and other land grant universities and USDA, of course.

**Rod Bain** [00:02:24] I'm Rod Bain reporting for the U.S. Department of Agriculture in Washington, D.C.