

Testimony against HB2882 from Professor Steven Strauss, Oregon State University, 8 May 2019

Dear Chairman Holvey and distinguished members of the House Rules Committee. I have come here to testify against HB 2882 as a scientist who has studied gene science and biotechnology, with a focus on its applications in forestry and agriculture, for all of my 33 year professional career. I am a Distinguished Professor at OSU, which is the highest honor that can be given to a faculty member there, have taught agricultural biotechnology science and social controversies at graduate and undergraduate levels, directed the College of Agriculture-based OSU Program for Outreach in Biotechnology for nearly a decade, and have conducted biotechnology research in my laboratory at OSU for my entire career. I think I know this area of technology, and its complex interactions with society, well.

As a scientist with no financial stake or conflicts of interest in the outcome of the bill, I will take a broad view on it. There are two fundamental problems with the bill: **First**, By establishing mechanism for lawsuits or government controls on genetic admixture, with no allowances for the low levels of mixing among crop varieties and downstream products that is normal in agriculture and food production, it hinders coexistence. One type of variety that a grower may wish to use would come with great legal and financial risk whereas other types would have no risk under this bill. What we want is more choices and options to help meet the growing problems, (pun intended), that farmers face as climates change and pest populations spread and proliferate, not fewer. And it is only the most powerful and most precise options—the ones provided by advanced biotechnologies—that would be penalized. This is simply against common sense. Oregon should seek to promote the free use of as many options as possible by farmers given our urgent agricultural production problems.

Second, this bill would penalize the use of **all** recombinant DNA based biotechnology, including the newest and most precise methods such as gene editing, often called CRISPR. I use this in my laboratory as do many thousands of scientists today, and it allows us to make very precise and efficient changes to **the natural genes** in our crops to modify traits like nutrient content. In other words it is like conventional breeding but is not a hit or miss operation—it specifically targets the genes that matter most based on scientific knowledge, and does not add genes from distant species. Most versions of gene edited crops are already exempted from regulation in the USA and many other countries, and numerous crops are now in the market or close to it that provide a wide variety of benefits for farmers and consumers. These include healthier food oils, disease resistance against major pests, reduced gluten and higher fiber wheat, reduced spoilage and food waste, improved biofuel production, and improved yields. Does Oregon want to penalize growers who use such crops, or the scientists, universities or companies that have pioneered and patented the innovations that underlie them? Again it is just against common sense.

Oregon does not want to be on the wrong side of history. We want better and more sustainable agriculture, and healthier foods, and the science is clear that new biotechnology

tools such as gene editing, managed smartly, can provide large benefits. It is also clear that such varieties will become increasingly commonplace in the coming years. We should not put in place rules that make their use fraught with risk and uncertainty.

Thanks very much for the chance to share these thoughts with you today.