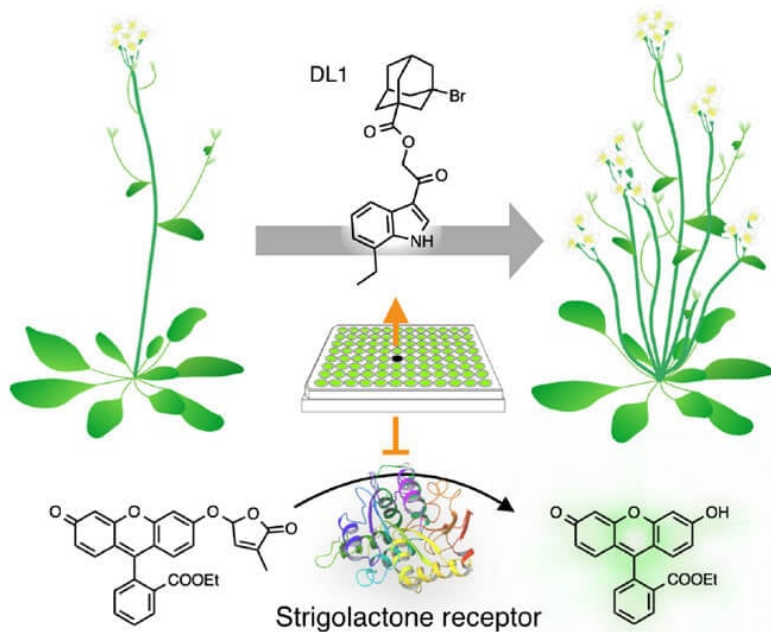


Chemical could boost crop yields by triggering gene to add branches and fruits

When it comes to agriculture from branched plants, such as apple trees, the more branches that bear fruit, the better. But in the real world, there's a limit to the number of branches that plants make — a gene tends to anchor. [In] *ACS Central Science*, researchers y leading to improved crop production.



Previous studies of a plant hormone that inhibits

shoot branching resulted in the identification of a regulator gene called *D14*. Shinya Hagihara, Yuichiro Tsuchiya and colleagues reasoned that if they could inhibit this regulator, they could do the opposite and increase branching. Tsuchiya and Hagihara's teams developed a screen in which they could monitor the shoot branching activity based on whether a reporter chemical called Yoshimulactone Green (YLG) glowed green. By screening a library of 800 compounds, the researchers found that 18 of them inhibited *D14* by 70 percent or more. Of these, one called DL1 was particularly active and specific. This inhibitor could increase shoot branching in both a type of flower and in rice. In preparation for DL1's use as a potential commercial agrochemical, the team is now testing how long the chemicals last in the soil and are investigating whether it is toxic to humans.

[Editor's note: Read [full study](#)]

Read full, original post: [A genetic trigger adds branches to plants, could boost crop yields](#)