New GMO crops are coming, but why do just four companies develop so many of them?

In November, Science magazine …. described how corn breeding researchers were able to activate a gene that regulated corn growth and development. If the gene was programmed to "turn on" at just the right time and for just the right amount of time, it could increase yields ….

However, that trait won't be commercially available for a few years …. The time-to-market for genetically modified traits is significantly longer than that for traits developed by conventional breeding, due not only to their expense and difficulty but to the various regulatory hurdles placed on them, especially overseas.

…

The lengthy and expensive process of developing new genetic traits is one factor driving the consolidation of seed developers into what are now the Big Four: Bayer (Monsanto), Corteva (Pioneer), ChemChina (Syngenta) and BASF. These four firms control about half the U.S. seed market, according to some estimates.

…

Precise measurement of fields and crops with robotic sensors and drones—what's called precision agriculture—have generated unprecedented amounts of precise data …. That's another reason for the corporate consolidation. It makes more sense (and is less expensive) to have all that data in one common pool under one company's umbrella.

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