



# DEERE IN THE HEADLIGHTS II

How Dealership Consolidation Reduces  
Repair Choice for Farmers



**U.S. PIRG** | Education  
Fund

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*The author bears any responsibility for factual errors.*

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# I EXECUTIVE SUMMARY

## Software repair locks tie farmers to dealers, putting equipment uptime—and sometimes crops—at risk

**FARMERS AND RANCHERS** rely on equipment such as tractors and combine harvesters to produce America’s food supply. Over the years, that equipment has gotten bigger,<sup>1</sup> more expensive<sup>2</sup> and more digital.<sup>3</sup> The software integrated in modern tractors, ostensibly created to make farm operations more efficient, is being used by manufacturers to lock farmers out of fixing their own equipment.<sup>4</sup>

If tractors were like cars, farmers would be able to choose between fixing their equipment themselves, hiring an independent mechanic to do it for them, or driving to the dealer. That is because 86% of Massachusetts voters approved an automotive Right to Repair ballot measure<sup>5</sup> that was eventually adopted by the industry nationwide.<sup>6</sup> This law, on which farmers and advocates modeled Agricultural Right to Repair legislation, requires auto manufacturers to provide car owners and independent repair shops with access to necessary repair materials.

But no Right to Repair law exists for agricultural equipment. That means

some necessary software tools are not available to farmers, independent repair mechanics, or anyone who is not manufacturer-approved.

What materials they can get their hands on can be of limited utility. Willie Cade, a regional director for Repair.org and a member of the Nebraska Farm Bureau, acquired the Diagnosis and Tests Service Manual for John Deere’s 8130, 82390, 8330, 8430, and 8530 machines. Of the roughly 700 error codes the Manual lists, 89% state that the farmer should contact their John Deere Dealer with little to no other guidance on how the farmer can fix their equipment.<sup>7</sup>

Therefore, farmers must turn to dealer technicians for certain repairs, as these are the only parties that can get access to necessary software repair tools.<sup>8</sup> Forced dealer service can cause farmers to face long delays and high repair costs<sup>9</sup> when their equipment breaks down. When a tractor malfunctions during planting, harvest or threatening weather, a farmer’s crop and livelihood can hang in the balance.

## Dealership consolidation further erodes farmers’ repair choices

**THAT MAKES LOCAL** dealerships incredibly important to a farmer’s

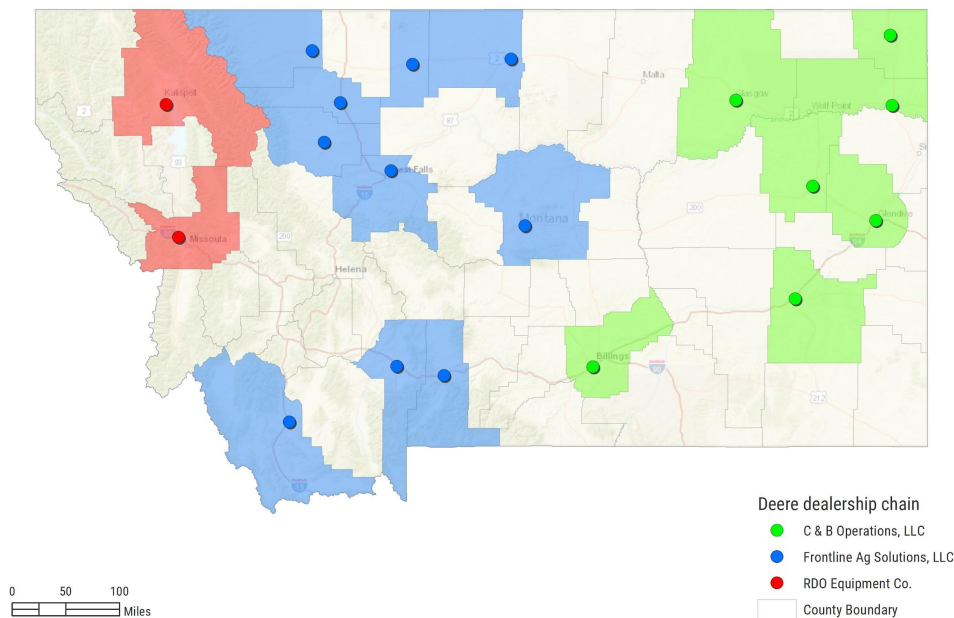
operation. But these dealerships are dwindling. According to the survey conducted by U.S. PIRG Education Fund and National Farmers Union, 65% of the 74 farmers who responded report having access to fewer dealerships than five years ago. At the same time, many farmers report that local mom and pop dealers were bought by larger chains, resulting in the consolidation our findings confirm.

John Deere, which controls 53% of the country's large tractor market,<sup>10</sup> has been working to consolidate dealerships since the mid-2000s.<sup>11</sup> Our research shows Deere has been quite successful in consolidating dealerships: 82% of Deere's 1,357 agricultural equipment dealerships are a part of a large chain with seven or more locations. The average Deere chain has about 8 sites, with the largest chain network including

67. This mass consolidation means that there is one John Deere dealership chain for every 12,018 farms and every 5.3 million acres of American farmland.

Particular chain dealership networks often dominate certain regions in states, meaning that some farmers only have one dealership choice near them. That can force them to travel long distances and cross state lines to get another quote from a dealer they might trust more. Montana offers a stark example of the regional domination of certain Deere dealerships. Despite having 58 million acres of farmland,<sup>12</sup> the second-most of any state in the country, there are only three large John Deere chains with a combined 19 locations serving Montana farms. RDO Equipment has a couple locations in Western Montana, Frontline Ag Solutions serves much of the center

Deere chains' regional dominance reduces choice for Montana farmers



of the state and C & B Operations has locations throughout Eastern Montana.

While less pronounced for other manufacturers, large dealership chains can be a problem for farmers regardless of the color of the paint on their tractor. The largest Case IH chain includes 57 locations, AGCO includes 31, and the chain with the most locations that service Kubota equipment has 6 sites.

Dealer-manufacturer exclusivity is connected to and compounds this problem. Ninety-five percent of the combined 2,942 John Deere, Kubota, Case IH and AGCO dealership locations across the country service agricultural equipment from only one of the four manufacturers. Repair restrictions require dealerships to maintain agreements with manufacturers in order to access repair materials. If these restrictions were removed, dealerships, like farmers, could buy the tools they need to fix equipment made by any manufacturer. But as it is now, repair-infrastructure remains locked down as consolidation limits choice for farmers.

## **The farmer's dilemma: Deal with your dealer or drive hundreds of miles?**

**SOME FARMERS HAVE** good working relationships with their dealership regardless of the size of the chain to

which it belongs. But many indicate that customer service at chain dealerships can be much worse than at local dealerships.

“When I first started farming, there were three family-owned dealerships within 45 minutes of my ranch. You’d walk in and one of the family members was behind the counter,” said Walter Schweitzer, a third-generation farmer and president of the Montana Farmers Union. “They went out of their way to help me because they had a vested interest in doing so—they didn’t want to lose my business to one of their nearby competitors.

“Now I have to drive nearly four hours to get to a second dealership chain, where there’s a corporate employee working. Between the lack of competition and the lack of local connection, I just don’t get the same service that I used to,” Schweitzer said.

The dealership landscape can also affect which equipment farmers purchase. Some farmers forgo modern equipment altogether; 77% of the 74 farmers U.S. PIRG Education Fund and National Farmers Union surveyed have purchased older-model equipment to avoid the software in newer equipment that requires dealership fixes.<sup>13</sup>

But not all farmers want to rely on decades-old tractors. When people ask Wyatt Parks, a Minnesota farmer, which

tractor to buy, he tells them to, “Buy whatever is the closest dealership to you because those are the people that you need to help fix your stuff. When you need a part, the distance of that drive to the dealership means a lot.”

When farmers don’t trust or don’t like their closest dealership, consolidation can require them to drive hundreds of miles to get a second opinion from another chain. That presents a dilemma for farmers: deal with the poor service or high prices that their closest dealership offers, or spend hours transporting your equipment to a competitor?

“I want to emphasize just how much consolidation is affecting this,” Missouri farmer Jared Wilson told U.S. PIRG Education Fund. “Even if they continue to have this repair monopoly, if they had some segmentation, it would provide some incentive for these dealerships to do a better job. The fact that they have consolidated so much means that they absolutely don't have to at all, because you just have no other choice. It's not practical to take your 20 ton machine and move it 300 miles to go get work done. The logistics of that just don't work.”

## **Right to Repair would immediately and dramatically expand repair options for farmers**

**AGRICULTURAL** right to repair forms would go a long way to solve these problems, unlocking existing repair infrastructure and allowing for further expansion. Just as Right to Repair would allow a farmer to fix their own equipment, it would also enable a Kubota-branded dealership to service John Deere equipment or a Case IH mechanic to repair an AGCO combine.<sup>14</sup> Independent mechanics would have access to repair information across all brands, meaning they could fix tractors regardless of the name on the hood.<sup>15</sup> Such policies are popular among the 74 farmers surveyed: 95% support Right to Repair.<sup>16</sup> The current system, however, prevents much overlap, eliminating farmer choice.

By implementing Right to Repair reforms, state and federal lawmakers could unlock existing repair infrastructure to provide farmers with far more repair choices. They could precipitate the expansion of the repair market, creating opportunities for new independent repair businesses to open, creating local jobs. State and federal lawmakers should implement Right to Repair to increase competition, improve customer service and lower repair costs for farmers.



# I INTRODUCTION

ON THE FARM, the fields must be plowed, planted or harvested whether or not your tractor or combine harvester is running. When their equipment does break down, generations of farmers have found a way to fix their equipment and get the job done. But now, equipment manufacturers refuse to give farmers all of the tools that they need to fix their stuff—especially the software tools to install replacement electronics<sup>17</sup>—leading to delays of hours to weeks while the farmer waits for the dealership to make the repair.

Farm equipment, much like all of the devices and gadgets in our lives, is increasingly driven by software. While this software has increased the efficiency of some tasks, it has increasingly allowed manufacturers to take control of the repair process.<sup>18</sup>

The sensors and control systems that feed this software with data have been integrated into most of the functions of modern combine harvesters, tractors and other farm equipment.<sup>19</sup> In cases where a mechanical issue engages safety or emissions control systems, or some part of those systems fail, the immobilizer can be activated.<sup>20</sup> This sends the machine into “limp mode,” which lowers the equipment’s power output to the point that the machine can do little more than “limp” out of the

way of other work until it is repaired and the error codes are cleared.<sup>21</sup>

Those error codes can be activated for a whole host of reasons. “When you look up an error code online, it tells you 30 different things that could be wrong. It could be the injectors plug, it could be a failed sensor, it could be that the Diesel Emissions Fluid pump is not putting out.” Wyatt Parks, a Minnesota farmer, said. “With software, the dealer can see specifically which one of those pieces is the issue. But because I can’t get that software, I have to chase parts, throwing money at the problem and replacing things until the problem goes away. Sometimes it’s just a software problem—you just need to go and reset it. I can’t do that.”

Without the software tools needed to diagnose problems, install replacement parts and authorize repairs, the engagement or failure of any sensor or control system could force a farmer to either haul their machine into the nearest dealership or wait for a field technician to show up to complete the repair.<sup>22</sup>

This leads some farmers to forgo modern equipment altogether; 77% of the 74 farmers U.S. PIRG Education Fund and National Farmers Union surveyed have purchased older-model equipment to avoid the software in

newer equipment.<sup>23</sup> Scott Potmesil, a fourth-generation cattle rancher who runs a cow-calf operation in the western Nebraska Sandhills, bought a 1995 John Deere tractor because his local independent mechanic can repair it. But that comes at a cost. “I’m giving up 25 years of technology—I’m going backwards on equipment just so I can afford to repair it,” he told U.S. PIRG Education Fund.

However, not all farmers can rely entirely on decades-old tractors. If

farmers can’t fix their software-connected systems without software tools only available to the dealer, that means their equipment—and livelihood—is dependent on dealership support. “When I look at how this equipment was engineered, I see machines that were built to ensure dealership dependency,” said Willie Cade, Repair.org regional director and member of the Nebraska Farm Bureau.

## European farmers better protected from repair monopolies

Under E.U. regulations covering a wide range of tractors, manufacturers are required to provide “non-discriminatory” access to repair and maintenance information to “authorised dealers, repairers and independent operators” in a standardized format.<sup>24</sup>

Specifically, manufacturers must provide “technical manuals and technical service bulletins,” “diagnostic trouble codes,” “wiring diagrams,” “all information needed to install new or updated software on a new vehicle or vehicle type (for instance software part number)” among access to other specific repair tools and information.<sup>25</sup> These requirements appear to require access to full service manuals with schematics (aka wiring diagrams), while updated service bulletins would imply that farmers in Europe can access technical support systems like PIP and DTAC. If manufacturers are also required to provide all information needed to install new software, that would mean access to necessary Payload Files.

Interestingly, while the E.U. permits functions that prevent emissions tampering, they are careful to protect repair: “Software critical to the correct functioning of the safety and environmental control system may be protected against unauthorised manipulations. However, any manipulation of those systems necessary for repair and maintenance or accessible to authorised dealers or repairers shall also be made accessible to independent operators in a non-discriminatory manner.”<sup>26</sup>

The fact that tractor manufacturers provide access to materials in Europe which they deny to farmers in the U.S.<sup>27</sup> undermines their arguments that access to such information poses a safety or security risk.

# CONSOLIDATION REDUCES FARMER CHOICE

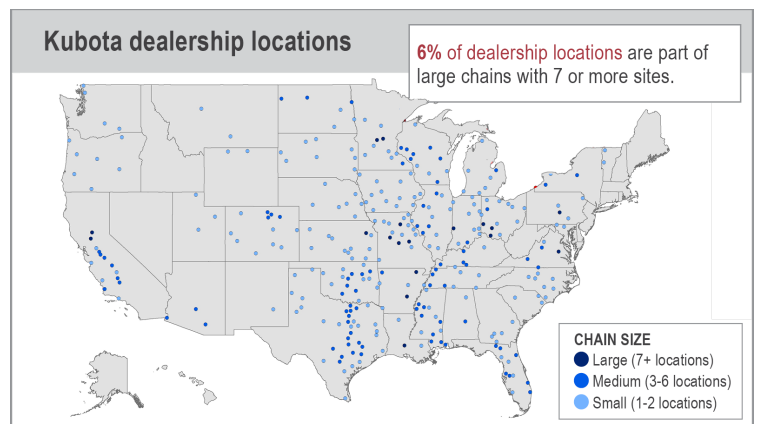
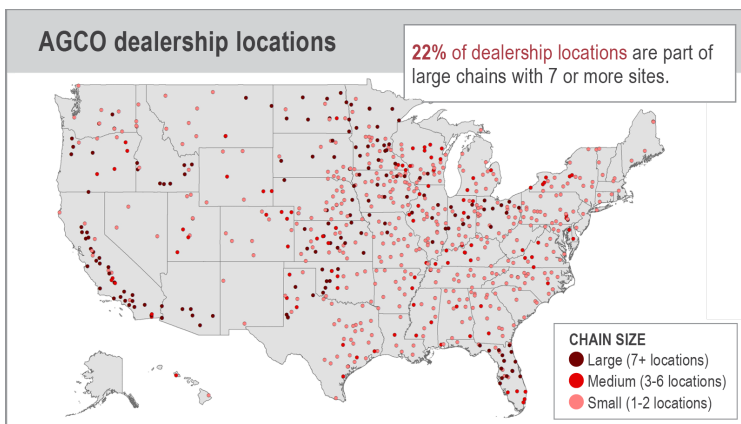
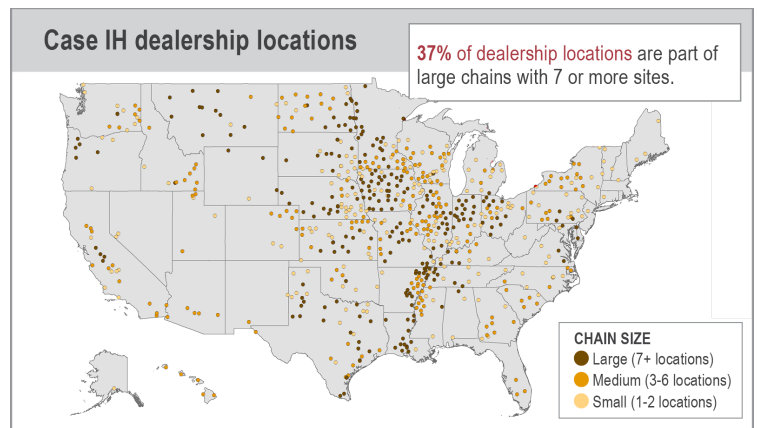
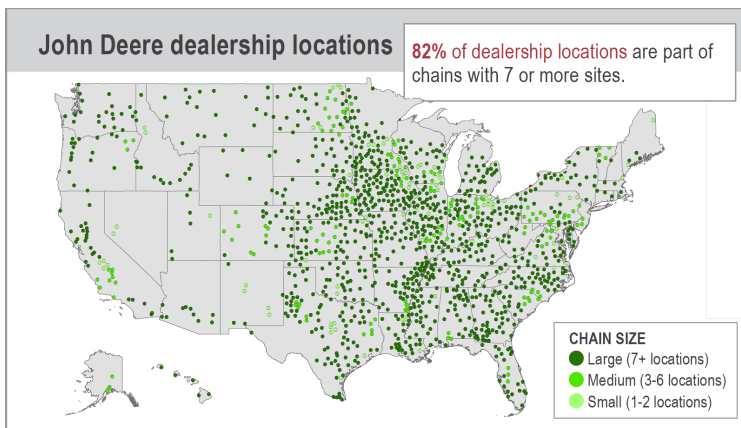
## Consolidated dealerships mean less competition

**MANUFACTURER-IMPOSED** restrictions on repair prevent farmers from fixing their own equipment.<sup>28</sup> Instead they have to rely upon the dealer,<sup>29</sup> making dealerships critical to getting a tractor back up and running so the farmer can get back to tending their crops.

Since the mid-2000s, John Deere has pushed some of its dealerships to consolidate and sell Deere products exclusively.<sup>30</sup> Large chains have replaced many local dealerships, sometimes allowing them to dominate certain

regions of states. That reduces competition, which in turn reduces farmers' repair choices. Farmers are left dealing with high repair prices and poor service that the chain might offer. Otherwise, they might have to drive hours to find the next closest chain.

In some cases, dealership conglomerates have been built to dominate parts of a state or span across as many as 11 states. Ag-Pro, a dealership chain that sells and services John Deere equipment, operates 67 locations across 8 states. Some chains have similarly broad reach, while others dominate particular regions of states.

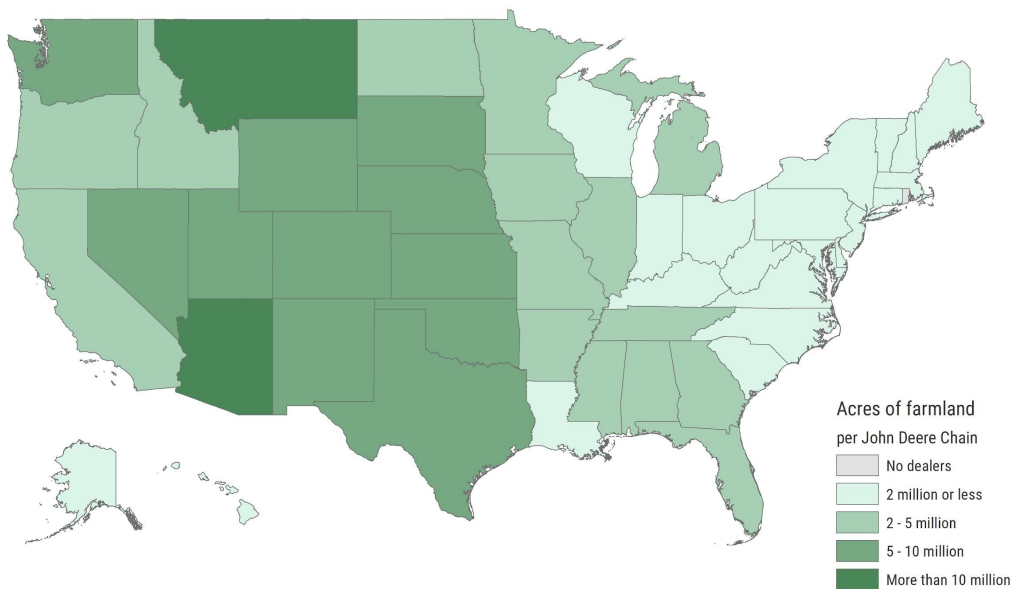


Our analysis of dealerships from four of the U.S.'s largest agricultural equipment manufacturers—John Deere, Case IH, AGCO and Kubota—found that Deere dealerships are by far the most consolidated of the group. 82% of Deere's 1,357 agricultural equipment dealership locations are a part of a large chain with seven or more locations. Eighteen of the 20 largest chains service John Deere equipment, as do 74% of all dealership locations that are part of large chains with 7 or more sites. It is clear that Deere, whose machines account for more than half of all agricultural equipment sales in the U.S. and more than a third of the \$68 billion worldwide market,<sup>31</sup> is the biggest perpetrator of this problem.

The market domination that John Deere exerts translates to what would appear to be one positive for farmers: almost twice as many dealership locations as the next largest manufacturer, AGCO. As a result, there is one John Deere dealership location for each 661,000 acres of American farmland, an industry best.

But the level of consolidation present in Deere dealerships turns what seems to be a positive into a negative. Each John Deere chain is responsible for covering an average of more than 5.3 million acres. That's a larger coverage area than even Kubota, which boasts only 311 dealership locations to Deere's 1,357.

Large Deere chain coverage areas leave farmers with less choice



That increasingly high number translates into a very real impact for farmers: less choice.

## Less competition means less choice

**KEN HELT, WHO RUNS** a farm in Southeast Iowa, was having trouble with his John Deere 7280. He told U.S. PIRG that the 2012 model-year machine would occasionally roll to a stop, at which point Ken would have to turn it off and turn it back on in order to get it to work again. It was a minor inconvenience at first, so he just dealt with it.

As time went on, he says this problem went from an inconvenience to a legitimate frustration and even a safety risk—the tractor would roll to a stop more and more frequently, sometimes as much as once an hour. That got in the way of his work in the corn and soybean fields. Helt reports that it caused his tractor to come to a dead stop one night on a four-lane highway, exposing him to oncoming traffic while he restarted his stationary tractor.

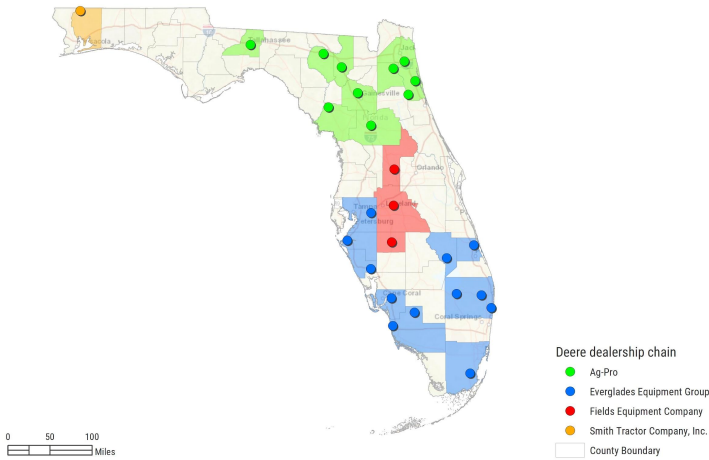
Helt says he had dealt with an issue like this in the past, and was pretty sure that it was an issue with the transmission. He says he told this to the technician the dealer sent to his farm in the spring of 2020, but the tech insisted there was no problem with the transmission and that his tractor was fine. This was the story

he got from his closest dealership, one of Sinclair Tractor's 12 locations in Iowa that service agricultural equipment, each of the times that Helt says he asked for their help. There are multiple Sinclair locations nearby, but to find a competing chain, Helt would have needed to cross state lines into Missouri. "I was desperate," Helt told U.S. PIRG. "I was worried I was going to have problems and not be able to plant." As a result, Helt had to turn to other equipment to get the job done.

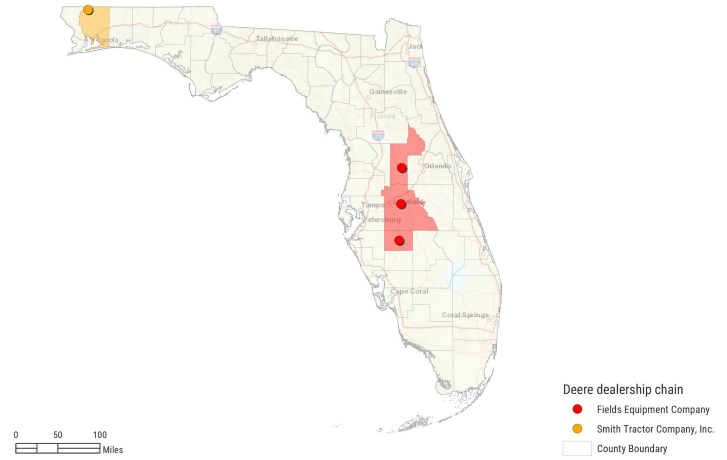
While on a roadtrip to visit family in Arizona, Helt says he decided to stop at a dealership in Nebraska. Software tools available to John Deere dealers allow technicians to look up tractor error codes remotely and access more in-depth information than what is available to farmers. Included in this exclusive information are notifications related to what John Deere calls Product Improvement Program (PIP). Deere issues public notices for some common failures and recalls, but can withhold website access to some PIP notices from equipment owners.<sup>32</sup>

Helt says the Nebraska dealer was much more cooperative and printed out information on the PIPs that were discovered for his equipment. All in all, he reports there were 9 different PIP update kits recommended for his tractor model—all of which were related to the transmission.

Deere chains' regional dominance reduces choice for Florida farmers



Florida Deere owners are left with few options outside of two largest chains



“If you have a dealer who doesn’t give a hoot, they don’t bother to tell you,” Helt said. “If I had access to the codes, I would have had this fixed years ago. Farmers should be able to go in, get the software, and see what’s wrong with the thing so I can get it fixed.”

Because he no longer trusted Sinclair, Helt decided to make the 100 mile roundtrip to the dealer in Missouri to have his tractor fixed. He says it took 8 weeks and cost him over \$27,000 before the tractor was fully repaired. It was nearly a year after the Sinclair technician first came out. During that time, his warranty expired, which meant he was left paying the bill.

“The thing that worries me most is that they have the power to not tell you what’s wrong with their tractor,” Helt said. “If I buy a new tractor, are they going to tell me that there’s a problem, or wait until my warranty is out so they

can charge me? I just don’t trust those guys.”

Analysis of state-level dealership data shows how consolidation forces farmers across the country into the same situation that Ken Helt faced. Many states are dominated by a few large chains, which often concentrate in certain regions within the state, exacerbating the problem.

Florida—a state with 47,500 farms covering 9.7 million acres of farmland according to 2020 USDA data<sup>33</sup>—is served by 26 John Deere dealership locations across the state, or about one dealership per 373,000 acres. But if you remove the two largest chains in the state, you're left with only four dealership locations owned by two different groups to choose from.

Montana is another stark example of regional domination. Despite having 58

million acres of farmland,<sup>34</sup> the second-most of any state in the country, there are only three large John Deere chains with a combined 19 locations serving Montana farms. RDO Equipment has a couple locations in Western Montana, Frontline Ag Solutions serves much of the center of the state and C & B Operations has locations throughout Eastern Montana.

In addition to limiting repair options when equipment breaks, dealership consolidation and manufacturer exclusivity can affect what kind of tractor farmers purchase in the future.

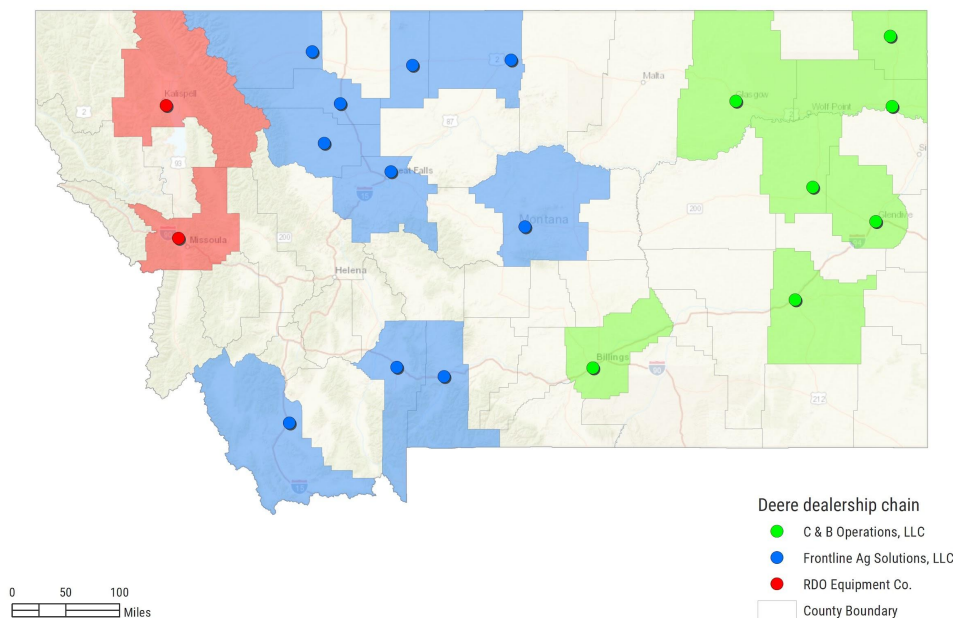
When people ask Wyatt Parks, a Minnesota farmer, what kind of tractor to buy, he instructs them to, “buy whatever is the closest dealership to you, because that’s the people that you need to help fix your stuff. And when

you need a part, that drive matters a lot.”

There are a combined 2,942 John Deere, Kubota, Case IH and AGCO dealership locations across the country. But 95% of those locations exclusively service agricultural equipment from one of the four manufacturers, and only two service ag equipment from more than two manufacturers. Though the repair infrastructure technically exists, repair restrictions and the requirement for dealers to have agreements with manufacturers limits which types of equipment those dealerships can service.

A dealership near Nebraska farmer Scott Potmesil had to stop selling and servicing Case IH equipment because of these agreements, Potmesil told U.S. PIRG. “The New Holland dealership

Deere chains' regional dominance reduces choice for Montana farmers



did sell Case IH, but then there's some dollar amount of new inventory they have to have on hand," Potmesil said. "They gave up the Case IH dealership and focused on New Holland totally. So that was coming from Case IH, saying, well, you need to have this much inventory. "

That can also make it hard for new dealerships to enter the market. "Consolidation is the name of the game," Parks said. "The way that finance deals are arranged, I don't know if it would even be possible to go and start a new dealership without like \$20 million in cash with any of these big chains. I think maybe you could become a Mahindra dealer, or Bronson or some off-brand name. But not AGCO, not Case IH, not John Deere."

Some farmers are avoiding the dealership-centered repair system altogether the only way they can—by buying older tractors that do not have the new software included, and therefore does not require access to dealer-exclusive software tools. Farmers can fix this equipment themselves or hire an independent to repair their tractors and combines for them.

Seventy-seven percent of the 74 farmers that U.S. PIRG Education Fund and National Farmers Union surveyed indicated that they had bought older-model equipment to avoid the software in newer equipment.<sup>35</sup> This

practice is causing older tractors to sell for unprecedented prices, such as a 1980 John Deere 4440 that sold for \$43,500 in Lake City, MN in April 2019.<sup>36</sup>

Potmesil is one of these farmers. He bought a 1995 John Deere 7800 series tractor because his independent mechanic can work on it. That mechanic charges \$45 to \$55 less an hour and is 15 miles closer to Potmesil's farm than his closest dealership, he says.

"I have to drive by his place to take my tractor to my dealership in town to be fixed. And it's frustrating. I trust him. I work well with him. I'm happy with the work when it's done there as opposed to the dealership," Potmesil said.

"I did buy a 1995 John Deere tractor on a recommendation from my mechanic. I'm giving up 25 years of technology—I'm going backwards on equipment just so I can afford to repair it," he told U.S. PIRG. "It'd be nice to upgrade to new stuff that my mechanic could work on. But I'm going backwards."

## Farmers miss the local touch

**FARMER RELIANCE** on dealer technicians to fix modern tractors makes dealerships essential to the repair process. But these dealerships are either disappearing—65% of farmers surveyed report having access to fewer dealerships than five years ago—or



being replaced by larger chains that can dominate regions and cross state lines.

One Pennsylvania dairy farmer, who asked to remain anonymous for fear of retribution, told U.S. PIRG Education Fund about his frustration with getting repair help from LandPro Equipment, his closest dealership. LandPro is a large John Deere dealership chain with 19 locations that service agricultural equipment across the states of Pennsylvania, Ohio and New York.

The farmer says that technicians at LandPro will help him find a part, but not much else. "If you don't have the part number, depending on which guy you have up there, they just look at you like you're an idiot, and would rather not help you look it up," the dairy farmer said. "It's very frustrating to go in there without knowing exactly what you need. It takes three times longer than it should because of their inability and their lack of desire to help you look up the part numbers. Not everybody has a parts manual on their farm to look up the part numbers. Used combines don't come with manuals normally."

The dairy farmer said he was lucky enough to have a manual, but that doesn't mean that he's found the right part in the book. "I might be looking at the wrong part numbers, but have the right part description in my mind. And they'll just order the number I give them. They'll stand there and be like,

'Oh, yeah, that's the right one'. And when they look at it, too, and they won't double check or stuff like that. So I've never been a big fan of the whole chain stores," he said.

Cindy Stanley, a Saranac, Michigan-based dairy farmer, had a similar experience. She says her closest dealership used to be privately-owned, but was recently bought up by a large chain—Hutson, Inc., which services John Deere agricultural equipment at 24 locations across Indiana, Michigan, Kentucky and Tennessee.

Stanley told U.S. PIRG that she called a technician to help her repair an 1985 John Deere tractor that had stopped working a few years prior. The battery was flat, "because it hasn't been driven in three years," she said she explained to the tech. "But there was something else wrong with it."

Nonetheless, "they came back with a battery. And we paid John Deere prices, which are an abomination. We got something like a \$700 bill for it," Stanley said. "[The technician] leaves; the tractor still doesn't work. So you go back and they look at you. They're like, 'Yeah, but he went and he fixed that.' I'm like, 'No, he didn't.' He put a new battery in. That was not the problem."

Eventually, Stanley says she had a local independent mechanic fix the tractor. "If I have a choice, the only time that I will

ever go to the dealer is when I need a specific part that I can't get as an aftermarket part."

It doesn't help being a woman, Stanley explains. "They treat me like I'm an idiot, they pat you on the head and they're like 'there, there dear, can I talk to your husband about this?' Well, no, he's at work. And he's not the one who has the problem. I am."

These large-chain experiences contrast greatly with the experiences Nebraska-based rancher Scott Potmesil reports having with his local independent mechanic. "He has skin in the game," Potmesil said. "He owns his business. And so his reputation is based on how well he gets the job done. If I have problems, we know we can work with him on that."

# I RIGHT TO REPAIR WOULD UNLOCK REPAIR CHOICE FOR FARMERS

**DEALERSHIP** consolidation magnifies the problems that manufacturer-imposed repair restrictions cause for farmers. In a response to the survey conducted by U.S. PIRG and National Farmers Union, one farmer described being, “frustrated with a feeling of being hog-tied.”

Jacob Bentz, a Minnesota farmer who had to wait more than two weeks for a fix due to repair restrictions, described the experience as being, “stressful because cutting and baling small squares of hay is extremely weather dependent.”

Another Pennsylvania farmer in a similar situation was, “beyond frustrated! I’m used to doing the work myself, now it’s almost impossible. I bought a 1945 Massey Harris so I could work on it myself.”

Harold Beach of Missouri had, “the computer circuit box in the combine [go] bad and we had to wait days for a technician to come out and then ended up going to three dealers to get the right parts to fix the problem.”

“I don't like the idea that we just can't do anything for ourselves, and we have to rely on mom and dad and big

corporate America to make it all better and tuck us in at night,” Minnesota farmer Wyatt Parks said.

Stories and feelings like this underscore why farmers are calling for Right to Repair reforms. This policy is very popular with farmers: 95% of the 74 farmers surveyed support Right to Repair.<sup>37</sup>

In addition to bringing independent fixers back into the repair ecosystem, Right to Repair reforms would also provide dealers with access to repair materials for all manufacturers, enabling them to service more types of equipment. This would both increase repair choice for farmers and provide dealers with the opportunity to take on repair work for more types of equipment.

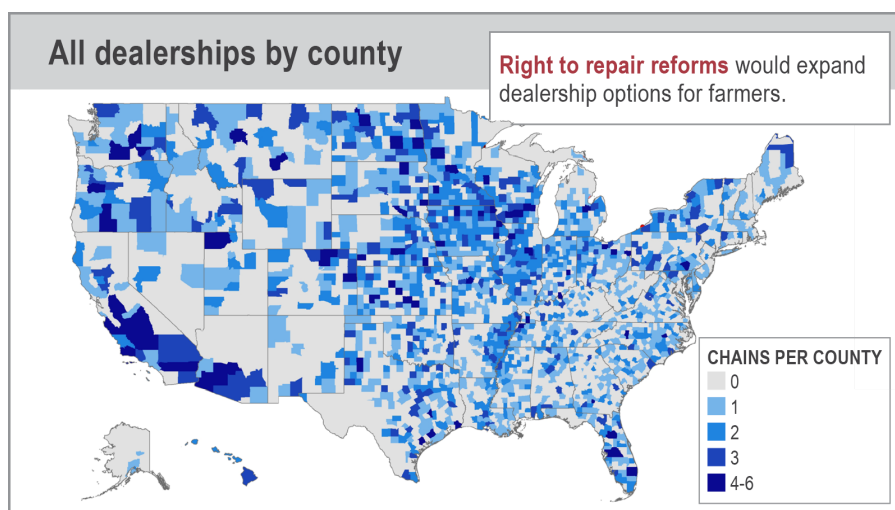
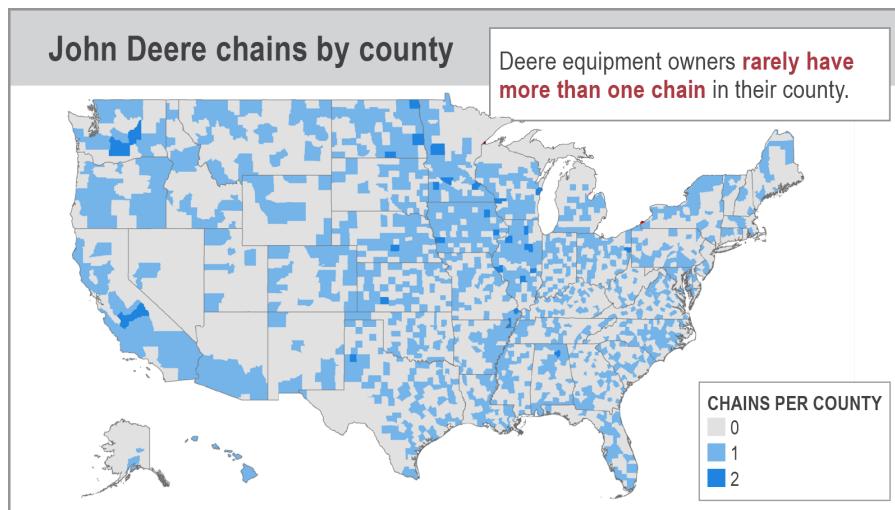
Legislators and decision-makers have taken note of farmers' calls for more repair choice through Right to Repair reforms. Sen. Tester (Montana) introduced the Agricultural Right to Repair Act in the U.S. Senate in February.<sup>38</sup> Bills that would open up access to tractor repair materials were active in 24 states across the country in 2021,<sup>39</sup> and 14 are already active in 2022.<sup>40</sup> Rep. Joe Morelle’s (New York)

Fair Repair Act,<sup>41</sup> currently active in the U.S. House of Representatives, would cover agricultural equipment.

Even the White House has signaled its support for the policy. In July, President Joe Biden signed an executive order that encouraged the Federal Trade Commission to exercise its statutory rulemaking authority to address, “unfair anticompetitive restrictions on third-part repair or self-repair of items, such as the restrictions imposed by powerful manufacturers that prevent farmers from repairing their own equipment.” The FTC answered shortly

after with a commitment to crack down on repair restrictions with “new vigor.”<sup>42</sup>

By implementing Right to Repair reforms, state and federal lawmakers could unlock existing repair infrastructure to provide farmers with far more repair choices. They could precipitate the expansion of the repair market, creating opportunities for new independent repair businesses to open, creating local jobs. State and federal lawmakers should implement Right to Repair to increase competition, improve customer service and lower repair costs for farmers.



# I METHODOLOGY

John Deere dealership data was collected through the company's Deere Locator website<sup>43</sup> from August 18 to August 23, 2021. Searches were filtered to view only agricultural equipment locations. Dealership names and addresses were individually copied and pasted into the dataset. The Deere Locator tool provides the 15 locations closest to a given search point—U.S. PIRG Education Fund selected 175 different search points to ensure that all locations were captured.

Case IH dealership data was collected from the company's Dealer Locator website<sup>44</sup> between October 20 and 29, 2021. Dealership names and addresses were individually copied and pasted into the dataset. Case IH does not sell turf or construction equipment, so there was no opportunity or need to filter for agriculture equipment.

AGCO dealership data was collected from the AGCO Parts Select a Dealer website<sup>45</sup> on December 2, 2021, and includes dealership data for AGCO brands Challenger, Fendt and Massey Ferguson. After entering an initial zip code, it is possible to scroll continuously until all locations are listed. That result was copied into a spreadsheet, from which dealership names and addresses were extracted. Dealerships that did not list a brand in the "Available Brand Parts" section of the search were

removed from the data set. Dealerships with names that did not seem related to agriculture (e.g. "Extreme Sports") were removed if their website made it clear that the dealership does not service agricultural equipment. There was no way to ensure that this list included only dealerships that service agriculture equipment—it is reasonable to assume that some of the results of the search sell AGCO parts but do not service equipment. AGCO's Challenger, Fendt and Massey Ferguson brands are all agriculture-focused, so there was no opportunity or need to filter out turf or construction equipment.

Kubota dealership data was collected from the company's Find A Dealer website<sup>46</sup> on October 29, 2021. Searches were filtered to include only agriculture tractors. Dealership names and addresses were individually copied and pasted into the dataset. The site had a malfunction when searching for Texas locations, so a list was acquired via email from Kubota Customer Satisfaction on December 1, 2021.

Dealership names and addresses were used to identify locations that belonged to a chain network, as well as locations that service equipment from more than one manufacturer. These values were scrubbed to remove misspellings, differing abbreviations and the like to prevent a dealership location from being

incorrectly counted twice and to standardize address formats across the dealer location datasets.

The number of dealership locations was calculated by counting unique addresses. Chain size was determined by counting unique addresses with the same dealership name.

Multi-manufacturer dealership locations have the same address and dealership name, and were on more than one manufacturer's website.

Dealership chains were split into three groups: small dealerships, medium chains and large chains. Small dealerships have locations with one or two different addresses ascribed to the same dealership name, medium chains have three to six locations and large chains have seven or more locations. These categories were determined based upon the national location count: if a dealership chain has four locations in Florida but 17 total locations, it is categorized as a large chain.

Data on the number of farms and amount of farmland in each state and across the country was pulled from the United States Department of Agriculture "Farms and Land in Farms 2020 Summary."<sup>47</sup>

# I APPENDIX A: STATE DEALERSHIP DATA

**TABLE A-1. MANUFACTURERS AT A GLANCE**

Manufacturer	Total Dealerships	Small Chains Dealerships	Medium Chain Dealerships	Large Chain Dealerships	Large Chain %	Average Chain Size	Largest Chain Size	Manufacturer-Exclusive Dealerships	Multi-Manufacturer Dealerships	Manufacturer-Exclusive %	1000 Acres Farmland / Dealership	1000 Acres Farmland / Chain
AGCO	730	463	109	158	21.6%	1.8	31	648	82	88.8%	1228	1872
Case IH	684	208	222	254	37.1%	2.8	57	589	95	86.1%	1311	3615
John Deere	1357	81	162	1114	82.1%	8.1	67	1343	14	99.0%	661	5337
Kubota	311	206	87	18	5.8%	1.9	16	222	89	71.4%	2883	4057

**TABLE A-2. AGCO STATE DEALERSHIP DATA**

State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Alabama	12	11	1	0	14	0%	1.4	6	2786	593	3250	692
Alaska	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Arizona	2	0	1	1	7	86%	5.5	8	2714	3743	9500	13100
Arkansas	9	8	1	0	13	0%	1.8	5	3246	1077	4689	1556
California	13	7	3	3	41	63%	4.3	15	1698	593	5354	1869
Colorado	8	6	2	0	12	0%	2.3	6	3233	2650	4850	3975
Connecticut	3	3	0	0	3	0%	1.0	1	1833	127	1833	127
Delaware	1	0	1	0	1	0%	6.0	6	2300	530	2300	530
Florida	10	8	1	1	29	48%	2.9	14	1638	334	4750	970
Georgia	13	12	1	0	15	0%	1.5	6	2760	680	3185	785
Hawaii	2	1	1	0	2	0%	3.0	5	3650	550	3650	550
Idaho	6	5	0	1	14	57%	2.8	10	1757	821	4100	1917
Illinois	19	17	1	1	30	20%	1.7	7	2370	900	3742	1421
Indiana	14	11	2	1	23	30%	2.1	7	2413	643	3964	1057
Iowa	30	28	0	2	39	23%	2.3	31	2179	785	2833	1020
Kansas	20	15	2	3	34	38%	3.1	16	1715	1344	2915	2285
Kentucky	6	4	2	0	12	0%	2.7	6	6208	1075	12417	2150
Louisiana	6	5	1	0	6	0%	1.3	3	4567	1333	4567	1333
Maine	4	4	0	0	4	0%	1.3	2	1900	325	1900	325

**TABLE A-2. (CONTINUED)**

State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Maryland	3	2	1	0	3	0%	2.7	6	4133	667	4133	667
Massachusetts	1	1	0	0	1	0%	1.0	1	7200	500	7200	500
Michigan	12	11	1	0	15	0%	1.3	3	3100	653	3875	817
Minnesota	22	20	1	1	41	44%	2.5	31	1646	620	3068	1155
Mississippi	8	6	2	0	9	0%	1.8	5	3822	1156	4300	1300
Missouri	22	20	1	1	25	12%	2.7	31	3800	1100	4318	1250
Montana	9	6	1	2	11	18%	4.6	19	2445	5273	2989	6444
Nebraska	22	21	0	1	25	16%	2.0	19	1820	1796	2068	2041
Nevada	2	2	0	0	3	0%	1.5	2	1117	2033	1675	3050
New Hampshire	2	2	0	0	2	0%	1.0	1	2050	215	2050	215
New Jersey	2	2	0	0	2	0%	1.0	1	4950	375	4950	375
New Mexico	2	2	0	0	2	0%	1.0	1	12400	20000	12400	20000
New York	18	16	2	0	22	0%	1.4	5	1518	314	1856	383
North Carolina	19	18	1	0	19	0%	1.3	6	2421	442	2421	442
North Dakota	5	3	1	1	14	64%	5.2	19	1857	2807	5200	7860
Ohio	20	19	0	1	27	30%	1.4	8	2881	504	3890	680
Oklahoma	10	6	2	2	16	38%	6.3	27	4831	2150	7730	3440
Oregon	5	3	1	1	12	42%	4.4	14	3100	1317	7440	3160
Pennsylvania	20	18	1	1	23	4%	1.8	8	2291	317	2635	365
Rhode Island	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
South Carolina	6	6	0	0	6	0%	1.0	1	4100	800	4100	800
South Dakota	12	11	0	1	17	29%	2.6	19	1741	2541	2467	3600
Tennessee	15	14	1	0	15	0%	1.3	5	4633	720	4633	720
Texas	35	30	3	2	44	9%	2.3	22	5614	2864	7057	3600
Utah	5	4	1	0	8	0%	1.6	3	2225	1338	3560	2140
Vermont	3	3	0	0	3	0%	1.3	2	2267	400	2267	400
Virginia	12	10	2	0	14	0%	1.7	6	3021	557	3525	650
Washington	9	7	1	1	10	20%	2.4	10	3550	1460	3944	1622
West Virginia	7	6	1	0	7	0%	1.4	4	3257	500	3257	500
Wisconsin	19	15	3	1	28	7%	3.2	31	2300	511	3389	753
Wyoming	5	4	1	0	7	0%	1.4	3	1714	4143	2400	5800
<b>United States</b>	<b>479</b>	<b>427</b>	<b>34</b>	<b>18</b>	<b>730</b>	<b>22%</b>	<b>1.8</b>	<b>31</b>	<b>2766</b>	<b>1228</b>	<b>4215</b>	<b>1872</b>



**TABLE A-3. CASE IH STATE DEALERSHIP DATA**

State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Alabama	3	2	0	1	3	33%	5.7	15	13000	2767	13000	2767
Alaska	1	1	0	0	1	0%	1.0	1	1050	850	1050	850
Arizona	3	0	3	0	5	0%	3.7	5	3800	5240	6333	8733
Arkansas	7	1	3	3	22	55%	6.9	15	1918	636	6029	2000
California	9	5	3	1	21	19%	3.0	9	3314	1157	7733	2700
Colorado	3	1	2	0	8	0%	4.3	6	4850	3975	12933	10600
Connecticut	1	1	0	0	1	0%	1.0	1	5500	380	5500	380
Delaware	1	0	0	1	2	100%	8.0	8	1150	265	2300	530
Florida	1	0	1	0	3	0%	3.0	3	15833	3233	47500	9700
Georgia	5	4	1	0	10	0%	2.2	6	4140	1020	8280	2040
Hawaii	1	0	1	0	5	0%	5.0	5	1460	220	7300	1100
Idaho	5	1	3	1	11	9%	5.8	12	2236	1045	4920	2300
Illinois	13	6	5	2	44	39%	4.8	16	1616	614	5469	2077
Indiana	9	5	1	3	25	64%	6.1	16	2220	592	6167	1644
Iowa	18	11	3	4	55	60%	6.4	57	1545	556	4722	1700
Kansas	14	9	3	2	29	34%	3.6	12	2010	1576	4164	3264
Kentucky	6	3	2	1	12	42%	5.0	15	6208	1075	12417	2150
Louisiana	2	1	0	1	15	93%	8.0	15	1827	533	13700	4000
Maine	3	3	0	0	3	0%	1.3	2	2533	433	2533	433
Maryland	2	1	0	1	2	50%	4.5	8	6200	1000	6200	1000
Massachusetts	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Michigan	10	8	1	1	13	8%	2.3	11	3577	754	4650	980
Minnesota	13	6	4	3	38	50%	7.6	57	1776	668	5192	1954
Mississippi	5	2	2	1	13	8%	5.8	15	2646	800	6880	2080
Missouri	12	6	3	3	31	55%	4.3	12	3065	887	7917	2292
Montana	6	2	1	3	14	79%	14.2	57	1921	4143	4483	9667
Nebraska	15	11	2	2	31	45%	6.2	57	1468	1448	3033	2993
Nevada	1	1	0	0	2	0%	2.0	2	1675	3050	3350	6100
New Hampshire	2	2	0	0	2	0%	1.0	1	2050	215	2050	215
New Jersey	1	1	0	0	1	0%	1.0	1	9900	750	9900	750
New Mexico	2	1	1	0	2	0%	2.0	3	12400	20000	12400	20000
New York	8	5	3	0	19	0%	2.5	6	1758	363	4175	863
North Carolina	7	4	3	0	9	0%	2.1	4	5111	933	6571	1200
North Dakota	9	3	4	2	29	41%	9.7	57	897	1355	2889	4367

**TABLE A-3. (CONTINUED)**

State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Ohio	9	6	1	2	24	46%	4.6	16	3242	567	8644	1511
Oklahoma	6	4	1	1	8	13%	3.5	14	9663	4300	12883	5733
Oregon	3	2	0	1	8	63%	4.0	9	4650	1975	12400	5267
Pennsylvania	13	9	3	1	19	16%	2.3	8	2774	384	4054	562
Rhode Island	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
South Carolina	3	1	2	0	6	0%	2.7	4	4100	800	8200	1600
South Dakota	11	9	0	2	21	48%	7.3	57	1410	2057	2691	3927
Tennessee	6	5	0	1	11	55%	3.3	15	6318	982	11583	1800
Texas	16	11	3	2	41	49%	2.9	14	6024	3073	15438	7875
Utah	4	2	2	0	5	0%	2.3	4	3560	2140	4450	2675
Vermont	1	1	0	0	2	0%	2.0	2	3400	600	6800	1200
Virginia	4	3	0	1	5	40%	2.8	8	8460	1560	10575	1950
Washington	7	4	2	1	15	7%	3.9	12	2367	973	5071	2086
West Virginia	1	1	0	0	1	0%	1.0	1	22800	3500	22800	3500
Wisconsin	18	12	5	1	33	3%	2.7	12	1952	433	3578	794
Wyoming	3	1	0	2	4	75%	23.0	57	3000	7250	4000	9667
<b>United States</b>	<b>248</b>	<b>173</b>	<b>56</b>	<b>19</b>	<b>684</b>	<b>37%</b>	<b>2.8</b>	<b>57</b>	<b>2952</b>	<b>1311</b>	<b>8141</b>	<b>3615</b>

**TABLE A-4. JOHN DEERE STATE DEALERSHIP DATA**

State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Alabama	4	0	1	3	31	94%	28.0	67	1258	268	9750	2075
Alaska	1	0	1	0	4	0%	4.0	4	263	213	1050	850
Arizona	2	0	0	2	10	100%	27.5	34	1900	2620	9500	13100
Arkansas	6	0	1	5	41	88%	22.5	45	1029	341	7033	2333
California	11	3	3	5	37	65%	10.9	37	1881	657	6327	2209
Colorado	6	0	2	4	27	67%	11.8	21	1437	1178	6467	5300
Connecticut	1	0	0	1	3	100%	45.0	45	1833	127	5500	380
Delaware	1	0	0	1	1	100%	12.0	12	2300	530	2300	530
Florida	4	0	2	2	26	85%	21.3	67	1827	373	11875	2425
Georgia	5	0	0	5	45	100%	23.8	67	920	227	8280	2040
Hawaii	1	0	0	1	5	100%	37.0	37	1460	220	7300	1100
Idaho	5	1	0	4	16	88%	20.6	37	1538	719	4920	2300
Illinois	12	4	3	5	73	79%	8.2	25	974	370	5925	2250
Indiana	10	0	4	6	40	73%	10.5	24	1388	370	5550	1480
Iowa	14	6	1	7	92	88%	11.6	36	924	333	6071	2186
Kansas	9	2	2	5	52	79%	11.8	27	1121	879	6478	5078
Kentucky	7	2	0	5	31	94%	19.0	67	2403	416	10643	1843
Louisiana	4	2	0	2	30	90%	7.5	16	913	267	6850	2000
Maine	3	2	0	1	5	60%	15.7	45	1520	260	2533	433
Maryland	3	1	1	1	12	75%	6.0	12	1033	167	4133	667
Massachusetts	1	0	0	1	3	100%	45.0	45	2400	167	7200	500
Michigan	3	0	0	3	27	100%	15.0	24	1722	363	15500	3267
Minnesota	11	3	3	5	61	79%	12.5	36	1107	416	6136	2309
Mississippi	4	1	0	3	30	97%	11.8	21	1147	347	8600	2600
Missouri	7	2	0	5	49	96%	13.7	31	1939	561	13571	3929
Montana	3	0	0	3	19	100%	26.7	36	1416	3053	8967	19333
Nebraska	6	0	1	5	54	93%	14.7	27	843	831	7583	7483
Nevada	1	1	0	0	2	0%	2.0	2	1675	3050	3350	6100
New Hampshire	2	1	0	1	2	50%	23.0	45	2050	215	2050	215
New Jersey	1	0	1	0	4	0%	4.0	4	2475	188	9900	750
New Mexico	6	3	0	3	8	50%	10.2	22	3100	5000	4133	6667
New York	4	1	0	3	26	96%	18.3	45	1285	265	8350	1725
North Carolina	6	1	1	4	40	90%	23.7	67	1150	210	7667	1400
North Dakota	10	4	3	3	40	53%	7.6	34	650	983	2600	3930

**TABLE A-4. (CONTINUED)**

State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Ohio	13	8	1	4	44	70%	9.2	67	1768	309	5985	1046
Oklahoma	5	1	0	4	31	94%	21.0	45	2494	1110	15460	6880
Oregon	4	0	1	3	21	86%	20.3	37	1771	752	9300	3950
Pennsylvania	8	2	4	2	26	35%	6.4	19	2027	281	6588	913
Rhode Island	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
South Carolina	5	0	2	3	19	68%	23.6	67	1295	253	4920	960
South Dakota	7	1	1	5	27	93%	17.1	36	1096	1600	4229	6171
Tennessee	5	0	0	5	30	100%	27.8	67	2317	360	13900	2160
Texas	13	5	2	6	96	81%	10.3	45	2573	1313	19000	9692
Utah	2	1	0	1	6	83%	11.0	21	2967	1783	8900	5350
Vermont	2	0	1	1	5	20%	24.5	45	1360	240	3400	600
Virginia	6	3	1	2	27	70%	8.5	26	1567	289	7050	1300
Washington	2	0	0	2	21	100%	35.5	37	1690	695	17750	7300
West Virginia	4	0	1	3	9	78%	13.8	26	2533	389	5700	875
Wisconsin	10	5	2	3	42	64%	6.0	22	1533	340	6440	1430
Wyoming	5	0	0	5	7	100%	18.0	36	1714	4143	2400	5800
<b>United States</b>	<b>168</b>	<b>65</b>	<b>37</b>	<b>66</b>	<b>1357</b>	<b>82%</b>	<b>8.1</b>	<b>67</b>	<b>1488</b>	<b>661</b>	<b>12018</b>	<b>5337</b>

**TABLE A-5. KUBOTA STATE DEALERSHIP DATA**

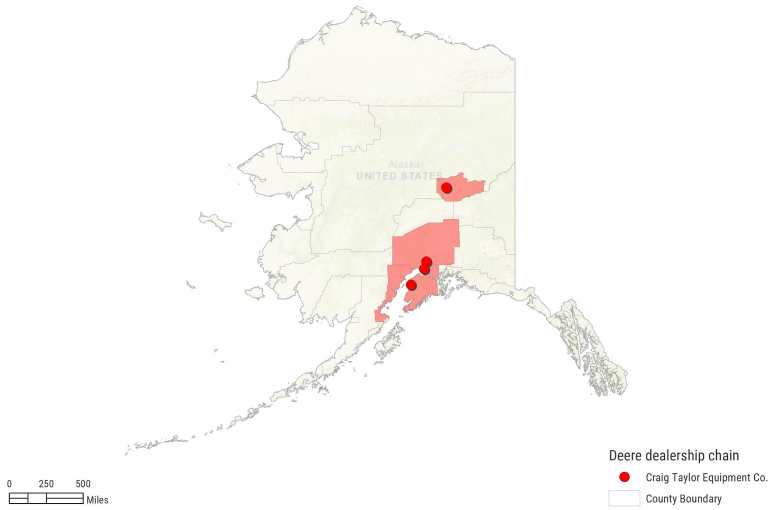
State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Alabama	2	1	1	0	3	0%	2.0	3	13000	2767	19500	4150
Alaska	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Arizona	1	0	1	0	3	0%	3.0	3	6333	8733	19000	26200
Arkansas	5	3	1	1	6	33%	2.8	7	7033	2333	8440	2800
California	8	4	3	1	14	14%	4.0	14	4971	1736	8700	3038
Colorado	6	5	1	0	12	0%	2.2	5	3233	2650	6467	5300
Connecticut	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Delaware	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Florida	6	4	2	0	11	0%	1.8	4	4318	882	7917	1617
Georgia	4	4	0	0	5	0%	1.3	2	8280	2040	10350	2550
Hawaii	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Idaho	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Illinois	12	8	4	0	13	0%	2.5	6	5469	2077	5925	2250
Indiana	10	8	1	1	11	9%	3.1	16	5045	1345	5550	1480
Iowa	14	14	0	0	14	0%	1.2	2	6071	2186	6071	2186
Kansas	10	9	0	1	12	8%	2.3	11	4858	3808	5830	4570
Kentucky	3	1	2	0	5	0%	3.0	5	14900	2580	24833	4300
Louisiana	3	2	0	1	3	33%	5.7	15	9133	2667	9133	2667
Maine	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Maryland	2	2	0	0	2	0%	1.0	1	6200	1000	6200	1000
Massachusetts	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Michigan	7	6	1	0	7	0%	1.3	3	6643	1400	6643	1400
Minnesota	8	6	1	1	10	20%	2.4	7	6750	2540	8438	3175
Mississippi	8	5	3	0	13	0%	2.0	5	2646	800	4300	1300
Missouri	11	10	0	1	16	25%	1.9	9	5938	1719	8636	2500
Montana	2	2	0	0	2	0%	1.0	1	13450	29000	13450	29000
Nebraska	7	7	0	0	7	0%	1.0	1	6500	6414	6500	6414
Nevada	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
New Hampshire	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
New Jersey	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
New Mexico	1	1	0	0	1	0%	1.0	1	24800	40000	24800	40000
New York	3	1	2	0	3	0%	2.7	4	11133	2300	11133	2300
North Carolina	7	7	0	0	7	0%	1.0	1	6571	1200	6571	1200
North Dakota	4	3	1	0	6	0%	1.5	3	4333	6550	6500	9825

**TABLE A-5. (CONTINUED)**

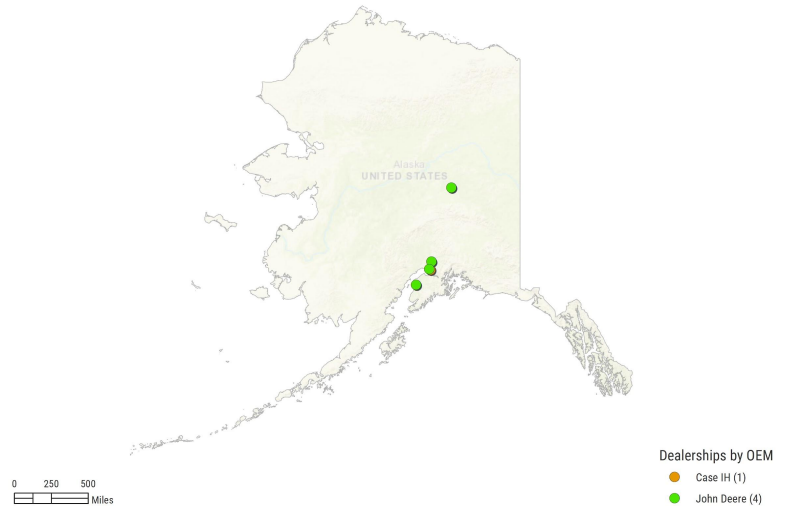
State	Total Chains	Small Chains (1-2)	Medium Chains (3-6)	Large Chains (7+)	Total Dealerships	Dealerships in Large Chain	Average Chain Size	Largest Chain Size	Farms / Dealership	1000 Acres Farmland / Dealership	Farms / Chain	1000 Acres Farmland / Chain
Ohio	11	9	1	1	13	23%	2.8	16	5985	1046	7073	1236
Oklahoma	10	8	2	0	16	0%	1.9	5	4831	2150	7730	3440
Oregon	7	7	0	0	7	0%	1.0	1	5314	2257	5314	2257
Pennsylvania	4	3	0	1	4	25%	2.8	8	13175	1825	13175	1825
Rhode Island	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
South Carolina	3	3	0	0	3	0%	1.0	1	8200	1600	8200	1600
South Dakota	8	8	0	0	8	0%	1.0	1	3700	5400	3700	5400
Tennessee	5	4	1	0	9	0%	2.0	5	7722	1200	13900	2160
Texas	20	17	3	0	38	0%	1.9	6	6500	3316	12350	6300
Utah	3	3	0	0	3	0%	1.0	1	5933	3567	5933	3567
Vermont	1	1	0	0	2	0%	2.0	2	3400	600	6800	1200
Virginia	3	1	1	1	5	20%	4.0	8	8460	1560	14100	2600
Washington	2	2	0	0	4	0%	2.0	2	8875	3650	17750	7300
West Virginia	0	0	0	0	0	0%	N/A	0	N/A	N/A	N/A	N/A
Wisconsin	7	4	3	0	11	0%	2.7	6	5855	1300	9200	2043
Wyoming	2	2	0	0	2	0%	1.0	1	6000	14500	6000	14500
<b>United States</b>	<b>221</b>	<b>182</b>	<b>31</b>	<b>8</b>	<b>311</b>	<b>6%</b>	<b>1.9</b>	<b>16</b>	<b>6492</b>	<b>2883</b>	<b>9136</b>	<b>4057</b>

# APPENDIX B: STATE DEALERSHIP MAPS

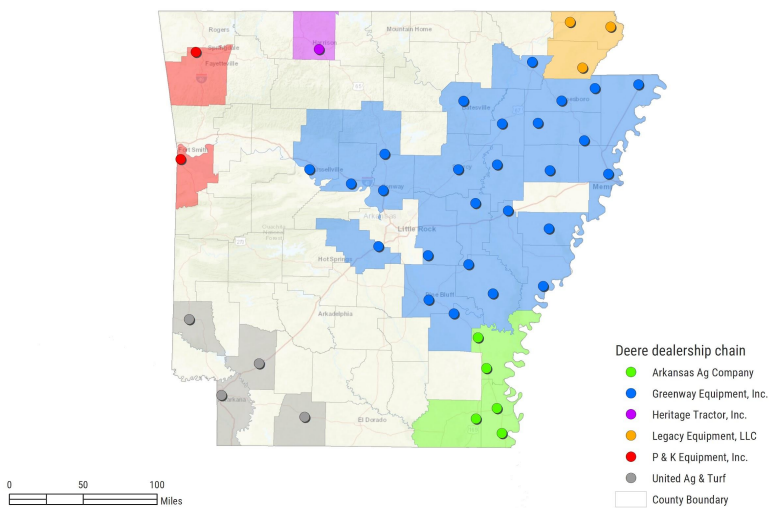
Deere chains' regional dominance reduces choice for Alaska farmers



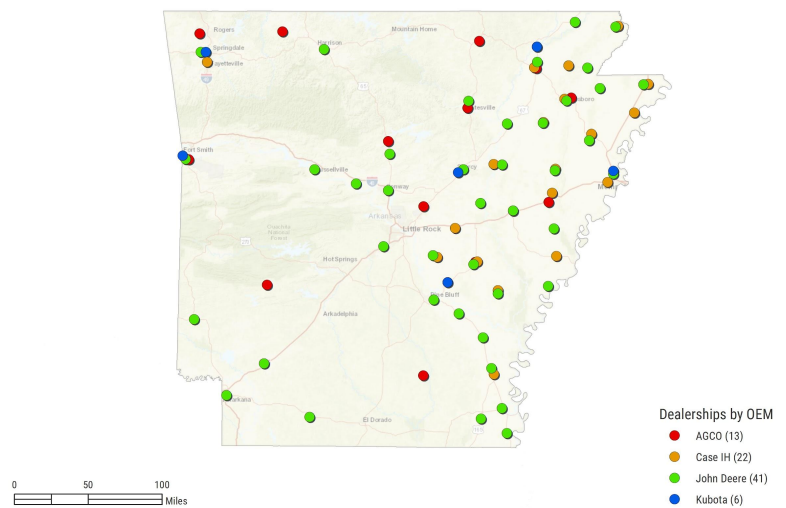
Right to Repair would expand Alaska farmers' repair choices



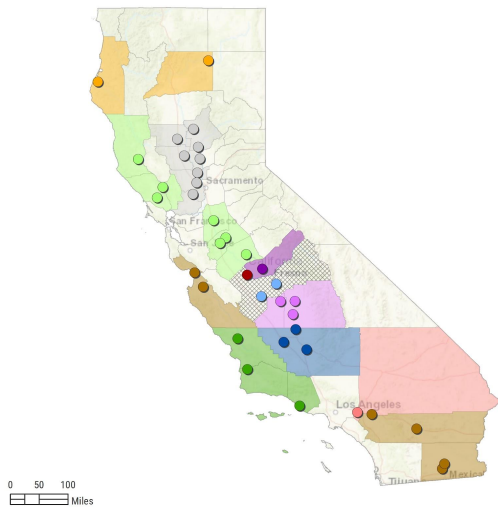
Deere chains' regional dominance reduces choice for Arkansas farmers



Right to Repair would expand Arkansas farmers' repair choices

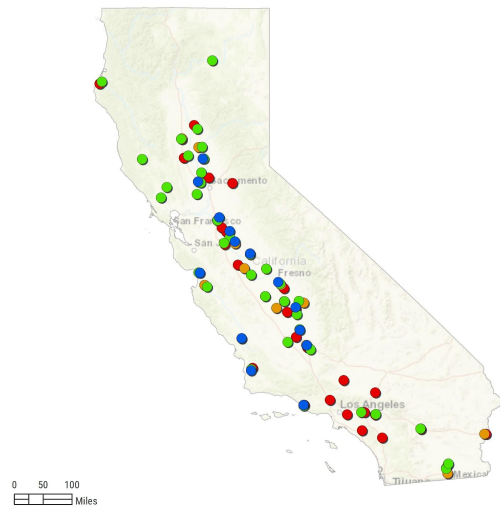


Deere chains' regional dominance reduces choice for California farmers



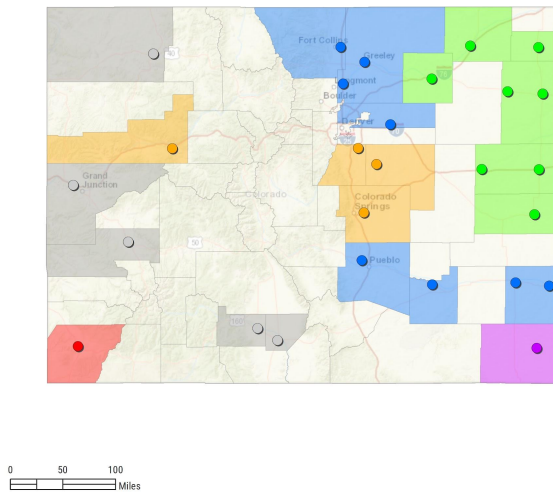
- Deere dealership chain**
- Belcorp Ag, LLC
  - Cal-Coast Machinery, Inc.
  - Fresno Equipment Co.
  - Kern Machinery, INC.
  - Lawrence Tractor Co., INC.
  - Midland Tractor Company
  - Pape Machinery, Inc.
  - RDO Equipment Co.
  - Stotz Equipment
  - Thomason Tractor Co. of CA
  - Valley Truck and Tractor INC.
  - ▨ Multi-chain county
  - ▭ County Boundary

Right to Repair would expand California farmers' repair choices



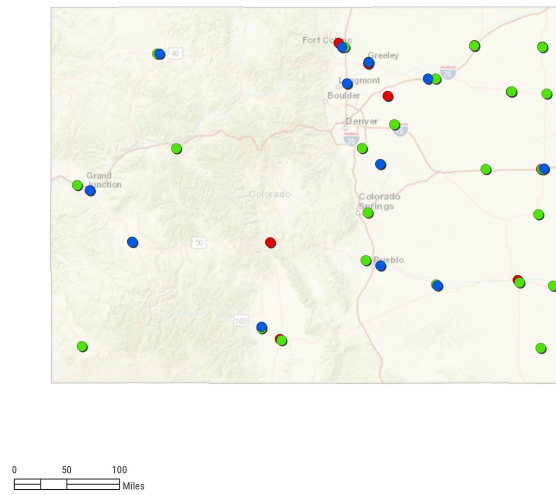
- Dealerships by OEM**
- AGCO (41)
  - Case IH (21)
  - John Deere (37)
  - Kubota (14)

Deere chains' regional dominance reduces choice for Colorado farmers



- Deere dealership chain**
- 21st Century Equipment, LLC
  - 4 Rivers Equipment
  - American Implement, Inc.
  - Potestio Brothers Equipment
  - Stotz Equipment
  - U.S. Tractor & Harvest
  - ▭ County Boundary

Right to Repair would expand Colorado farmers' repair choices

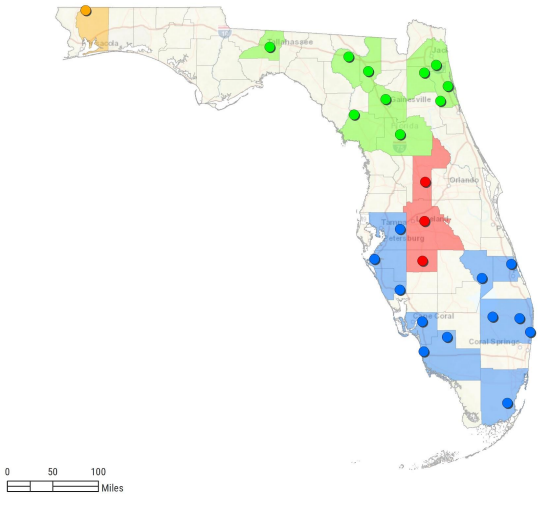


- Dealerships by OEM**
- AGCO (12)
  - Case IH (8)
  - John Deere (27)
  - Kubota (12)

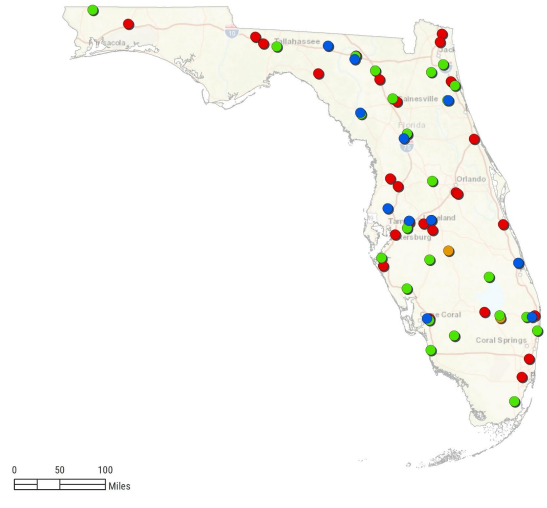


Deere chains' regional dominance reduces choice for Florida farmers

Right to Repair would expand Florida farmers' repair choices



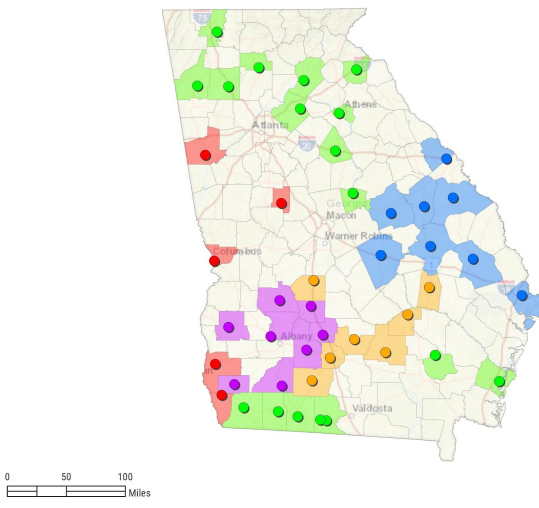
- Deere dealership chain**
- Ag-Pro
  - Everglades Equipment Group
  - Fields Equipment Company
  - Smith Tractor Company, Inc.
  - County Boundary



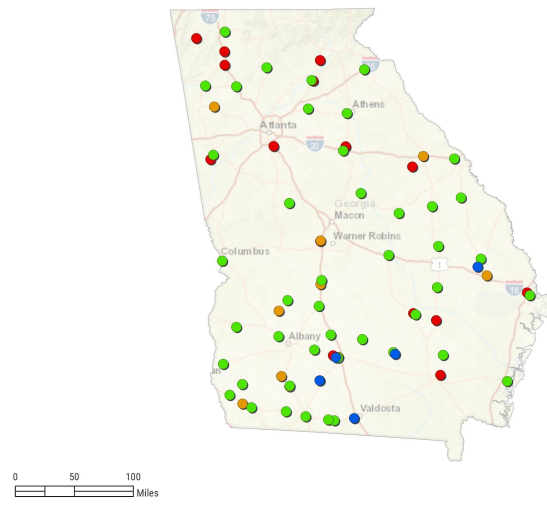
- Dealerships by OEM**
- AGCO (29)
  - Case IH (3)
  - John Deere (26)
  - Kubota (11)

Deere chains' regional dominance reduces choice for Georgia farmers

Right to Repair would expand Georgia farmers' repair choices

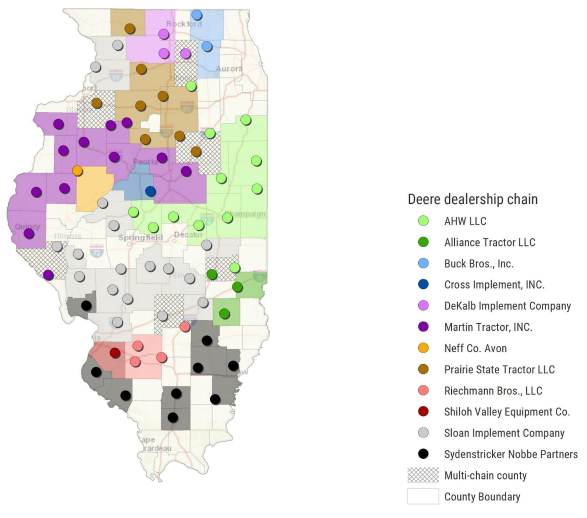


- Deere dealership chain**
- Ag-Pro
  - Blanchard Equipment Co., Inc.
  - Flint Equipment Co.
  - Lassetter Tractor Co., INC.
  - SunSouth LLC
  - County Boundary

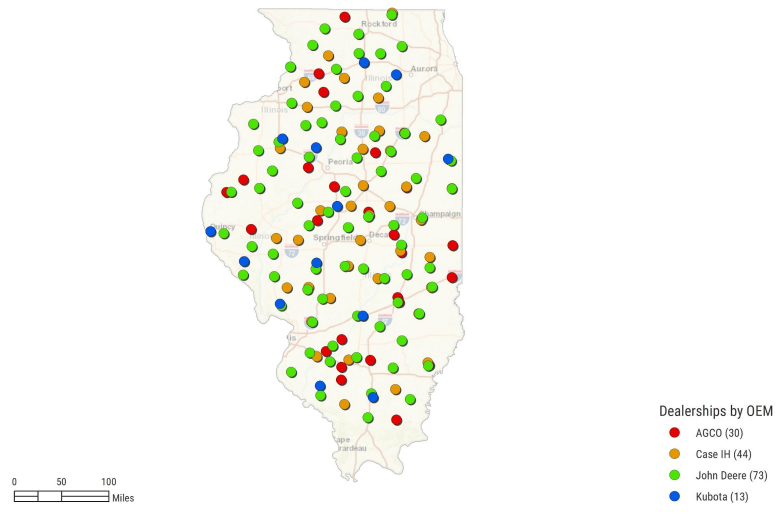


- Dealerships by OEM**
- AGCO (15)
  - Case IH (10)
  - John Deere (45)
  - Kubota (5)

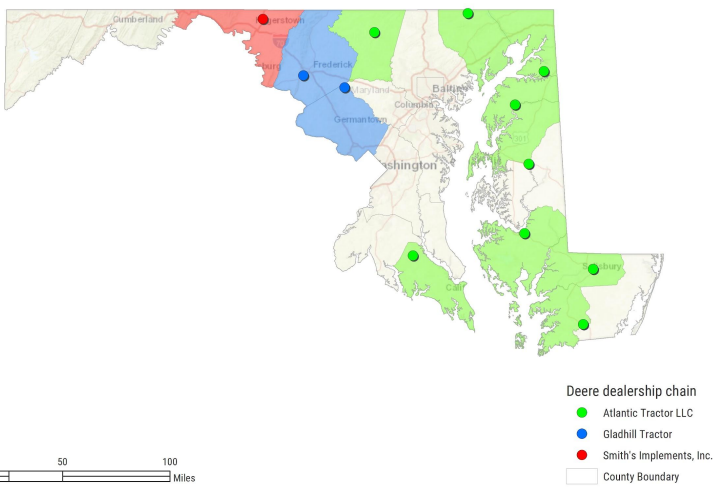
Deere chains' regional dominance reduces choice for Illinois farmers



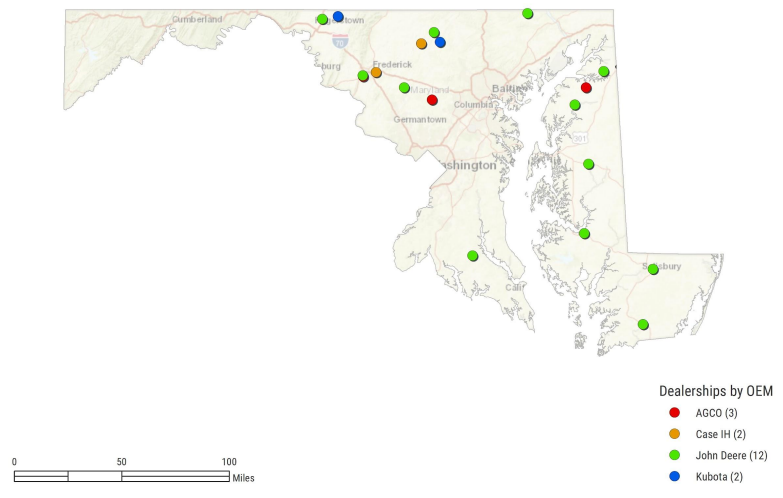
Right to Repair would expand Illinois farmers' repair choices



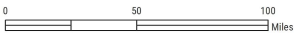
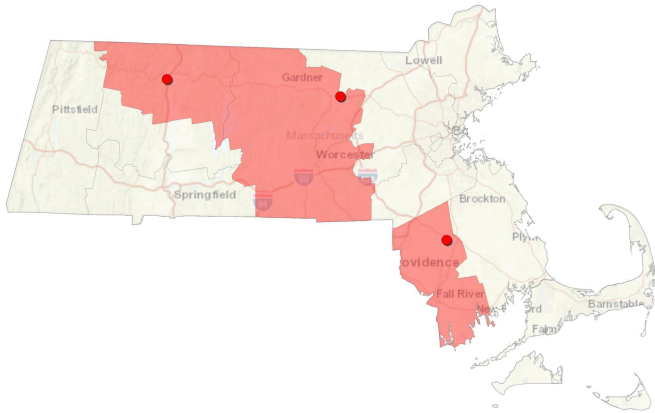
Deere chains' regional dominance reduces choice for Maryland farmers



Right to Repair would expand Maryland farmers' repair choices

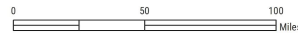
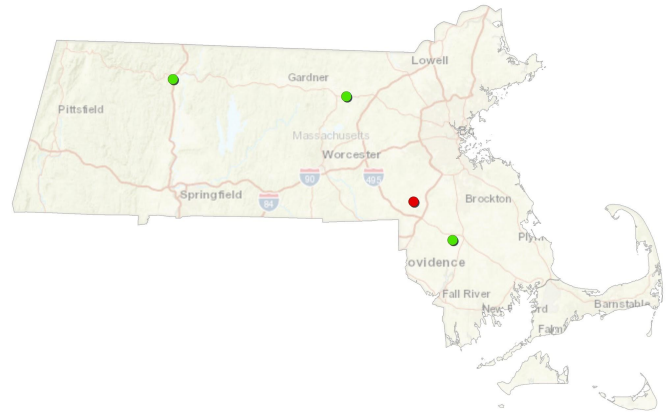


Deere chains' regional dominance reduces choice for Massachusetts farmers



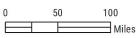
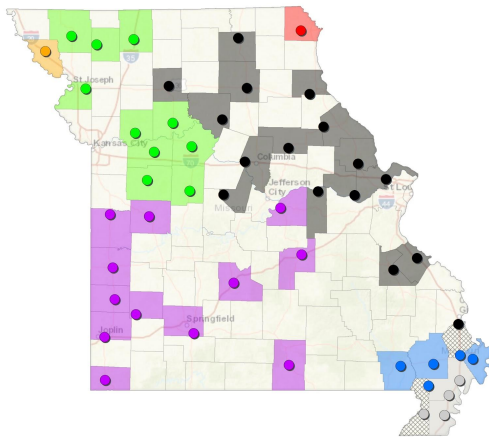
**Deere dealership chain**  
 ● United Ag & Turf  
 □ County Boundary

Right to Repair would expand Massachusetts farmers' repair choices



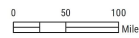
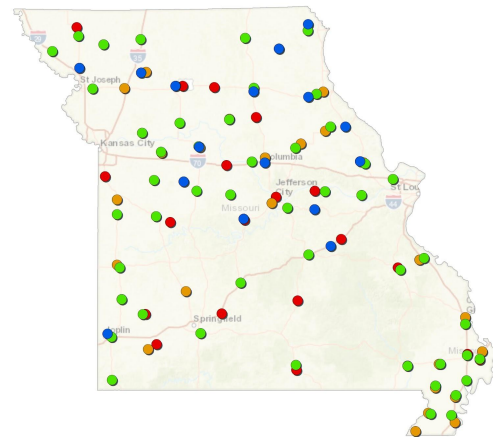
**Dealerships by OEM**  
 ● AGCO (1)  
 ● John Deere (3)

Deere chains' regional dominance reduces choice for Missouri farmers



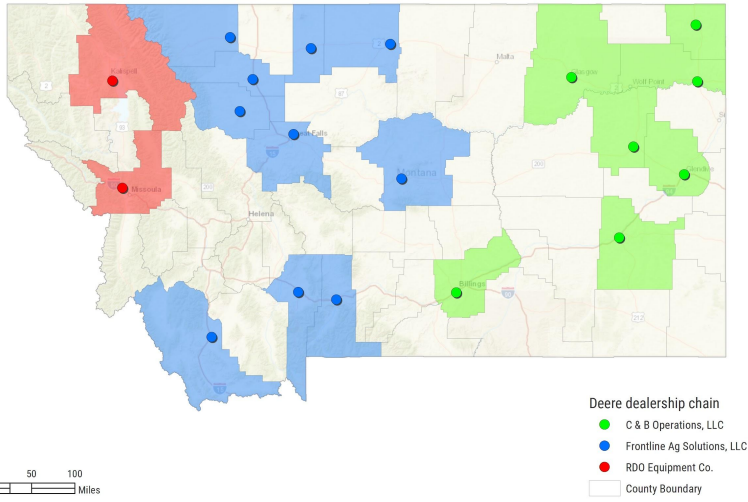
**Deere dealership chain**  
 ● Ag-Power, Inc.  
 ● Greenway Equipment, Inc.  
 ● Heritage Tractor, Inc.  
 ● Hiawatha Implement Co., Inc.  
 ● IMI Equip., L.L.C  
 ● Legacy Equipment, LLC  
 ● Sydenstricker Nobble Partners  
 ▨ Multi-chain county  
 □ County Boundary

Right to Repair would expand Missouri farmers' repair choices

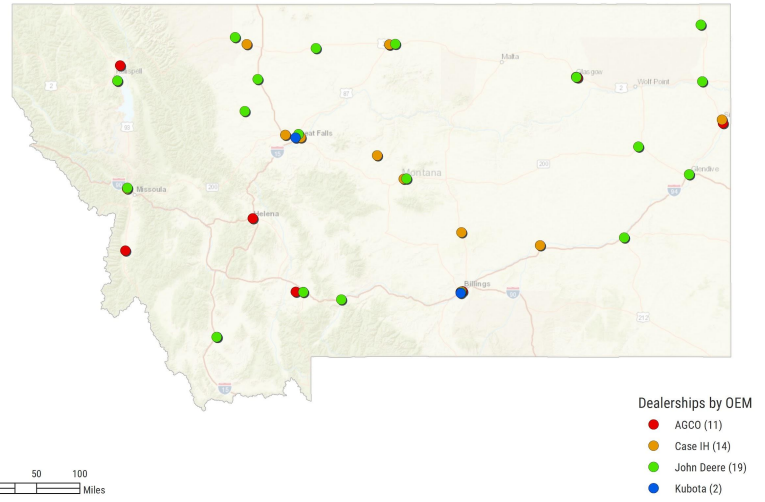


**Dealerships by OEM**  
 ● AGCO (25)  
 ● Case IH (31)  
 ● John Deere (49)  
 ● Kubota (16)

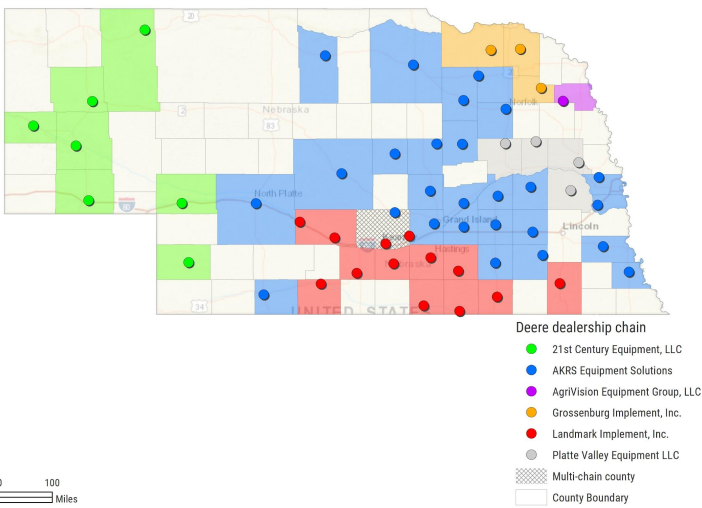
Deere chains' regional dominance reduces choice for Montana farmers



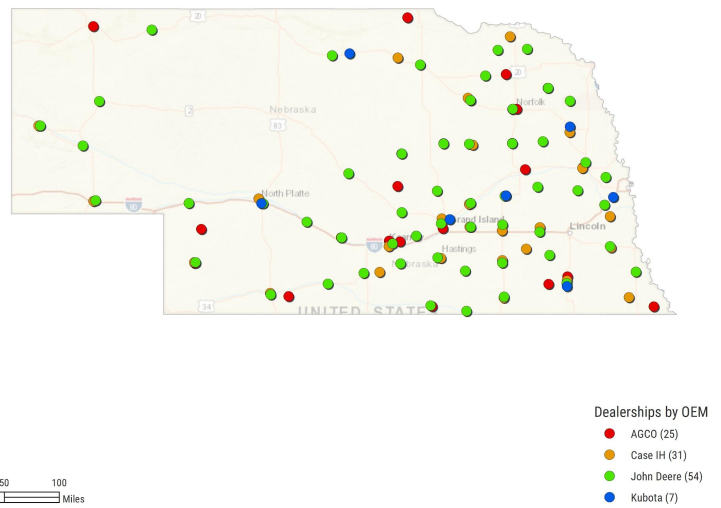
Right to Repair would expand Montana farmers' repair choices



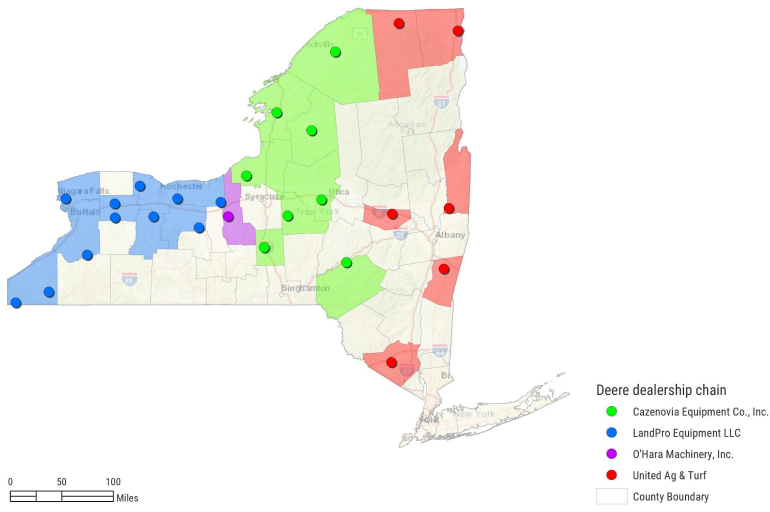
Deere chains' regional dominance reduces choice for Nebraska farmers



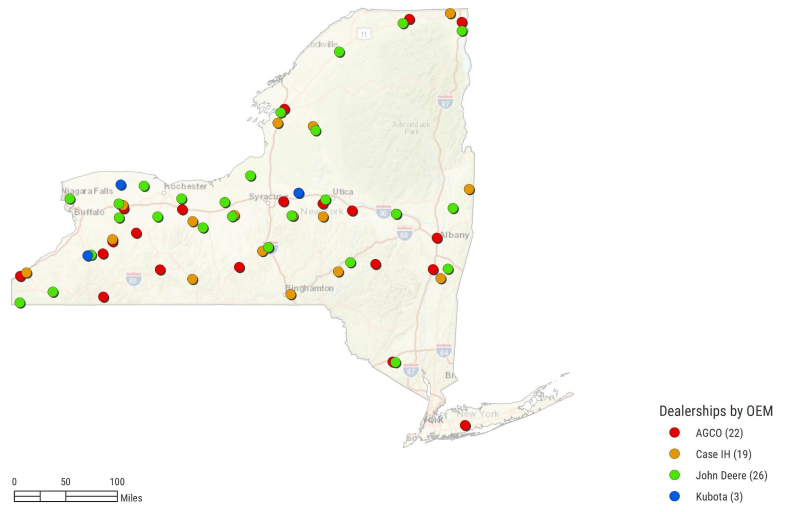
Right to Repair would expand Nebraska farmers' repair choices



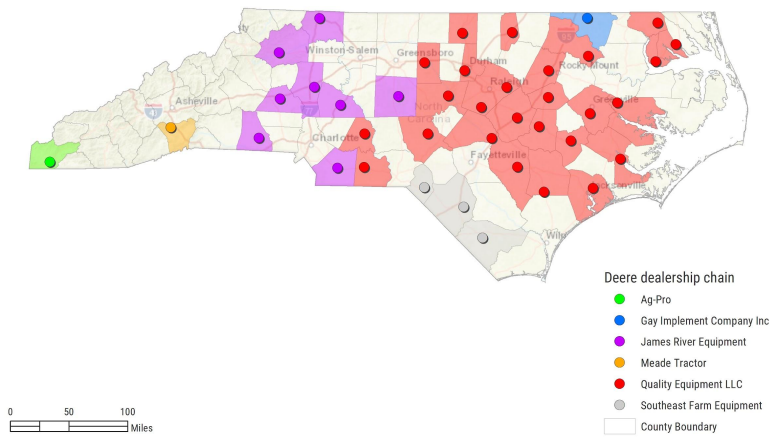
Deere chains' regional dominance reduces choice for New York farmers



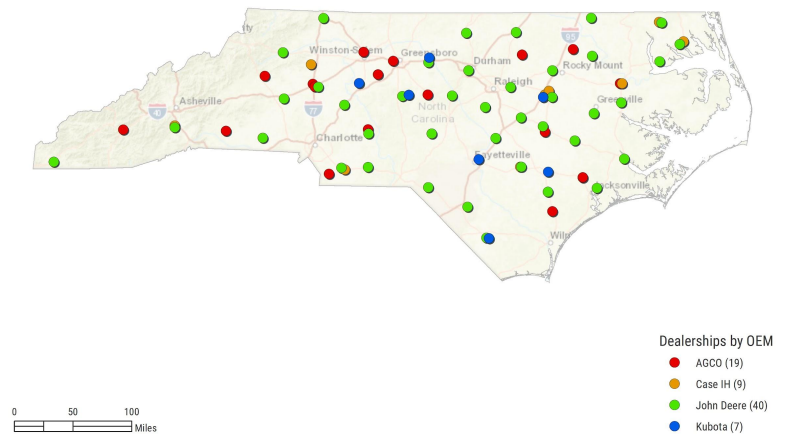
Right to Repair would expand New York farmers' repair choices



Deere chains' regional dominance reduces choice for North Carolina farmers

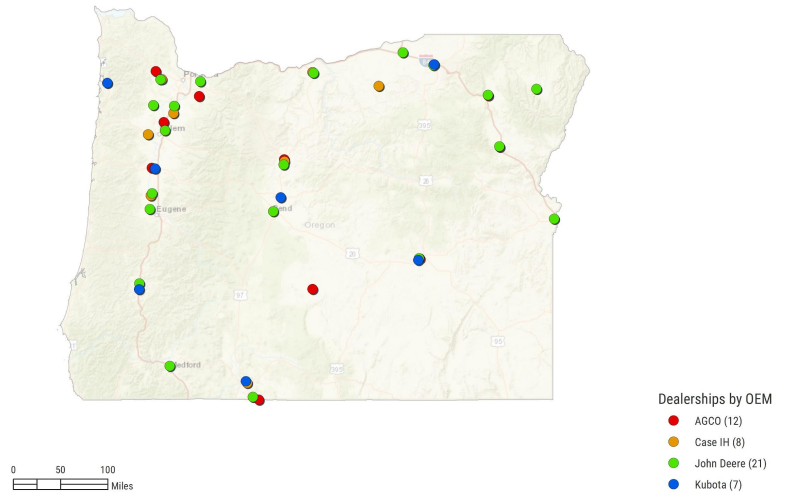
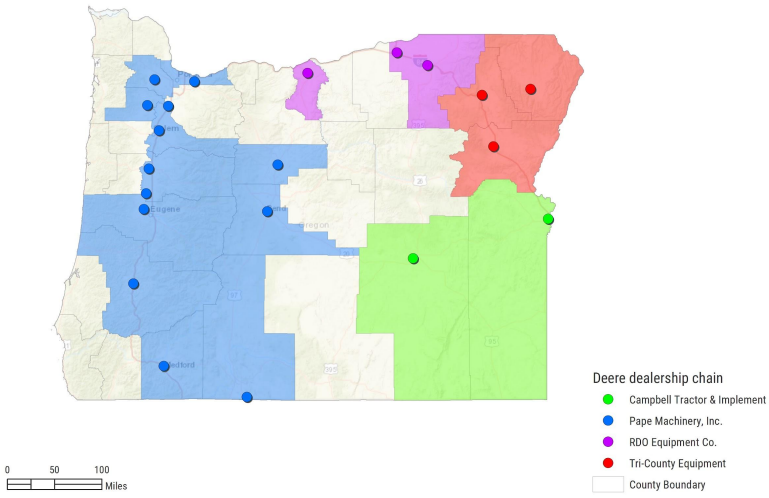


Right to Repair would expand North Carolina farmers' repair choices



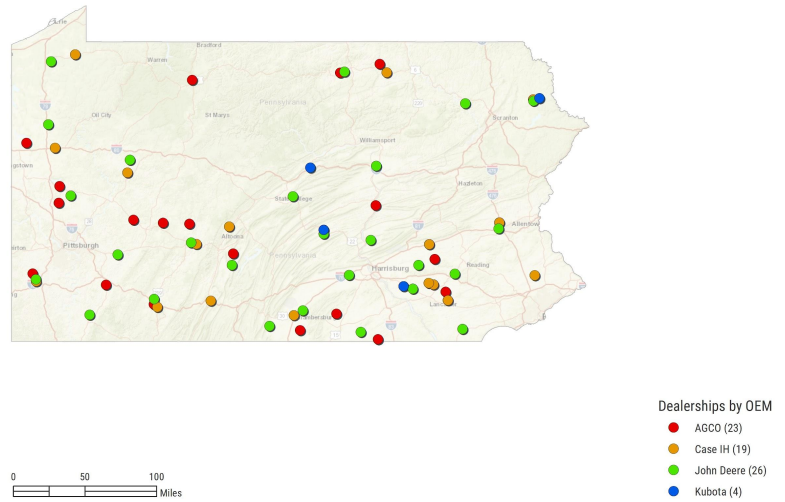
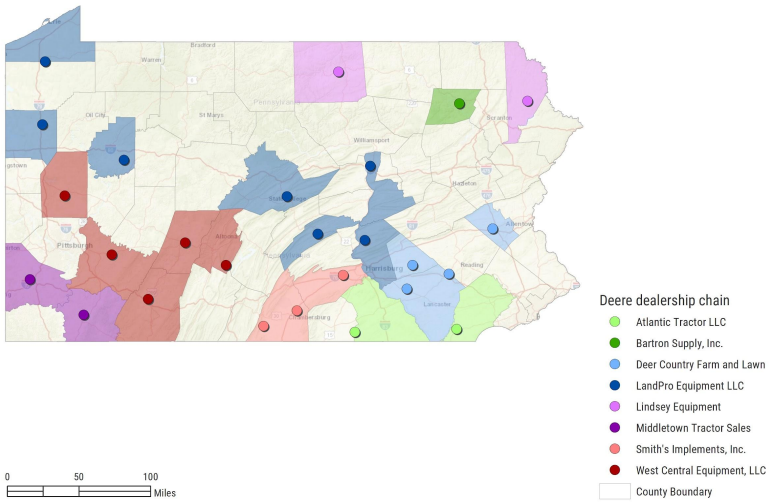
Deere chains' regional dominance reduces choice for Oregon farmers

Right to Repair would expand Oregon farmers' repair choices

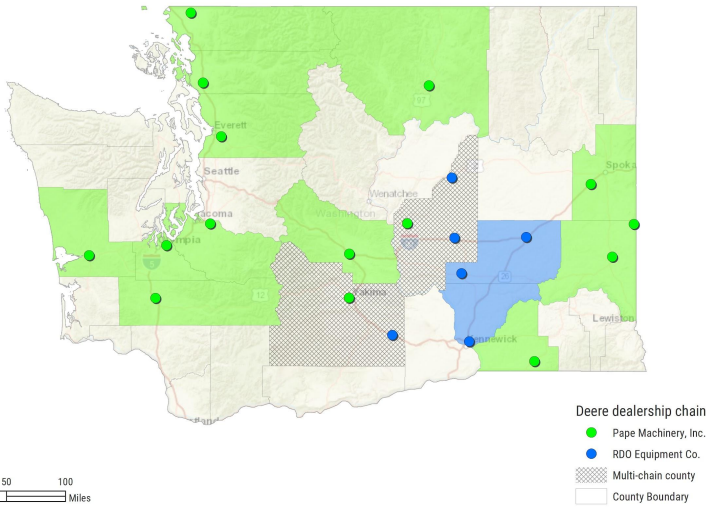


Deere chains' regional dominance reduces choice for Pennsylvania farmers

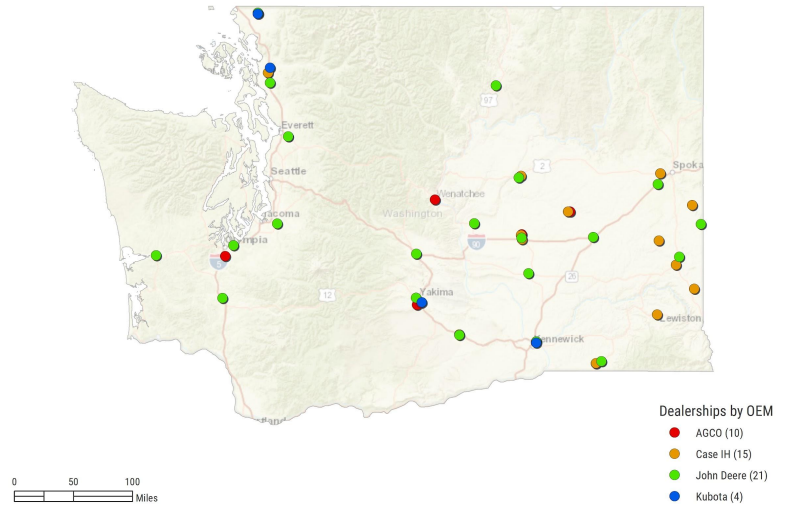
Right to Repair would expand Pennsylvania farmers' repair choices



Deere chains' regional dominance reduces choice for Washington farmers



Right to Repair would expand Washington farmers' repair choices



# I NOTES

1. Jennifer Reibel, "Manufacturer Consolidation Reshaping the Farm Equipment Marketplace," *Farm Equipment*, 29 August 2018, available at <https://www.farm-equipment.com/articles/15962-manufacturer-consolidation-reshaping-the-farm-equipment-marketplace>.
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4. Kevin O'Reilly, "Deere in the Headlights," *U.S. PIRG*, 18 February 2021, available at <https://uspig.org/feature/usp/deere-headlights>.
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7. Confirmed in conversation with Willie Cade, Repair.org regional director and member of Nebraska Farm Bureau.
8. Jason Koebler, Matthew Gault, "John Deere Promised Farmers It Would Make Tractors Easy to Repair. It Lied." *VICE*, 18 February 2021, available at <https://www.vice.com/en/article/v7m8mx/john-deere-promised-farmers-it-would-make-tractors-easy-to-repair-it-lied>.
9. Kevin O'Reilly, "Deere in the Headlights," *U.S. PIRG*, 18 February 2021, available at <https://uspig.org/feature/usp/deere-headlights>.
10. Jennifer Reibel, "Manufacturer Consolidation Reshaping the Farm Equipment Marketplace," *Farm Equipment*, 29 August 2018, available at <https://www.farm-equipment.com/articles/15962-manufacturer-consolidation-reshaping-the-farm-equipment-marketplace>.
11. Ilan Brat and Timothy Aeppel, "Why Deere Is Weeding Out Dealers Even as Farms Boom," *Wall Street Journal*, 14 August 2007, available at <https://www.wsj.com/articles/SB118705668767896842>.
12. USDA, *Farm and Land in Farms 2020 Summary*, February 2021, available at <https://downloads.usda.library.cornell.edu/usda-esmis/files/5712m6524/tq57pj927/rx914h75j/fnlo0221.pdf>.
13. Kevin O'Reilly, "Why Farmers Need Right to Repair," *U.S. PIRG*, 1 February 2022, available at <https://uspig.org/blogs/blog/usp/why-farmers-need-right-repair>.
14. Confirmed in personal conversation with Repair.org Executive Director Gay Gordon-Byrne
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16. Kevin O'Reilly, "Why Farmers Need Right to Repair," *U.S. PIRG*, 1 February 2022, available at <https://uspig.org/blogs/blog/usp/why-farmers-need-right-repair>.
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19. Ibid.
20. Kevin O'Reilly, "Deere in the Headlights," *U.S. PIRG*, 18 February 2021, available at <https://uspig.org/feature/usp/deere-headlights>.
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21. Peter Waldman and Lydia Mulvany, "Farmers Fight John Deere Over Who Gets to Fix an \$800,000 Tractor," *Bloomberg Businessweek*, 5 March 2020, available at <https://www.bloomberg.com/news/features/2020-03-05/farmers-fight-john-deere-over-who-gets-to-fix-an-800-000-tractor>.
22. Kevin O'Reilly, "Deere in the Headlights," *U.S. PIRG*, 18 February 2021, available at <https://uspig.org/feature/usp/deere-headlights>.
23. Kevin O'Reilly, "Why Farmers Need Right to Repair," *U.S. PIRG*, 1 February 2022, available at <https://uspig.org/blogs/blog/usp/why-farmers-need-right-repair>.
24. European Union, *Regulation (EU) No 167/2013 of the European Parliament and of the Council of 5 February 2013 on the approval and market surveillance of agricultural and forestry vehicles*, see Article 53, available at <https://eur-lex.europa.eu/legal-content/EN/XT/?uri=CELEX%3A02013R0167-20190418>
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26. Ibid.
27. Kevin O'Reilly, "Deere in the Headlights," *U.S. PIRG*, 18 February 2021, available at <https://uspig.org/feature/usp/deere-headlights>.
28. Ibid.
29. Peter Waldman and Lydia Mulvany, "Farmers Fight John Deere Over Who Gets to Fix an \$800,000 Tractor," *Bloomberg Businessweek*, 5 March 2020, available at <https://www.bloomberg.com/news/features/2020-03-05/farmers-fight-john-deere-over-who-gets-to-fix-an-800-000-tractor>.
30. Ilan Brat and Timothy Aepfel, "Why Deere Is Weeding Out Dealers Even as Farms Boom," *Wall Street Journal*, 14 August 2007, available at <https://www.wsj.com/articles/SB118705668767896842>.
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