

No. 11-796

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IN THE  
**Supreme Court of the United States**

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VERNON HUGH BOWMAN,  
*Petitioner,*

v.

MONSANTO COMPANY, *et al.*,  
*Respondents.*

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**On Writ of Certiorari to the  
United States Court of Appeals  
for the Federal Circuit**

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**BRIEF FOR *AMICUS CURIAE*  
CROPLIFE INTERNATIONAL  
SUPPORTING RESPONDENTS**

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**BRIEF FOR *AMICUS CURIAE*  
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SUPPORTING RESPONDENTS**

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**INTEREST OF *AMICUS CURIAE*<sup>1</sup>**

CropLife International (CropLife) is a global federation representing the plant science industry and a network of regional and national associations in 91 countries. CropLife also has company members, including BASF, Bayer CropScience, Dow AgroSciences, DuPont-Pioneer,

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<sup>1</sup> Pursuant to this Court's Rule 37.6, *amicus* affirms that no counsel for a party authored this brief in whole or in part, that no such counsel or party made a monetary contribution intended to fund the preparation or submission of this brief, and that no person or persons other than *amicus* and its counsel made such a monetary contribution. Petitioner's and respondents' letters consenting to the filing of all *amicus* briefs are on file with the Clerk's office.

FMC, Monsanto, Sumitomo, and Syngenta.<sup>2</sup> These companies are committed to sustainable agriculture through innovative research and development in the areas of crop protection, pest control, and seed and plant technologies.

Among the innovative products provided by CropLife member companies are seeds and plants that, unlike any found in nature, have been bioengineered or bred to have one or more novel properties. Such plants increase yields and decrease the use of pesticides, herbicides, water, and nutrients. This benefits the environment, farmers, and the public. Consumers gain from commercialized products made from such plants, which can be bred to contain healthier oils and exhibit other salutary features. Increased production of scarce resources is of self-evident benefit, especially in countries experiencing deprivation. To recoup the investments made in these research and development efforts, CropLife's member companies rely on the exclusivity afforded by patents.

#### SUMMARY OF ARGUMENT

At great cost and inventive effort, Monsanto genetically engineered soy beans (the seeds of soy plants) to contain the trait of herbicide resistance—an extremely valuable trait that does not naturally occur in soy. This Court should affirm the Federal Circuit's judgment that patent exhaustion does not bar Monsanto from holding Bowman liable for making copies of Monsanto's patented seed.

1. Commodity soy beans are generally an undifferentiated, heterogeneous mixture of beans from farms across a region. Bowman purchased such beans at a grain elevator, hoping and expecting that a large proportion of them would be patented seeds possessing the herbicide-resistance trait. He planted them and cultivated

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<sup>2</sup> Monsanto has been recused from internal participation in the preparation of CropLife's brief. See *supra* n.1.

resulting herbicide-resistant soy plants that bore herbicide-resistant seeds. In so doing, he produced a new generation of patented seeds containing the herbicide-resistance trait—an impermissible act of infringement. This “making” contravened 35 U.S.C. § 271(a) and was beyond the reach of the doctrine of exhaustion.

The patent-law concept of “making” has been a staple of American law since 1790. It is not a term of art, but bears its plain and ordinary meaning, see *Bauer & Cie v. O'Donnell*, 229 U.S. 1, 10 (1913), which comfortably embraces the concepts of “bringing about” or “causing.” Bowman himself acknowledges that he engaged in at least such acts when he cultivated herbicide-resistant soy plants from commodity beans and caused those plants to generate a new generation of herbicide-resistant seeds. No precedent suggests a more restrictive definition of “making” that would exclude Bowman’s conduct.

Bowman’s escape hatch is to point to the plants grown from those beans, saying that *they*, and not Bowman himself, engaged in a “making.” But that strained argument, which would deprive Monsanto of its basic patent right to bring claims for direct infringement, cannot immunize Bowman. Even if that distinction were recognized, Bowman would still be liable for direct infringement under agency-and-instrumentality law. The acts of beans and plants under Bowman’s control must be imputed to Bowman.

Bowman also claims that Monsanto should be limited to alleging induced and contributory infringement under § 271(b)-(c), which has more elements (like scienter) than § 271(a) and is therefore easier to defeat. There is no good reason to uniquely limit patentees like Monsanto to this subsidiary cause of action. Monsanto, like any other patentee, should be able to recover for direct infringement.

2. Settled jurisprudence justifies affirming the judgment below, but policy considerations support that result just as strongly. Were acts like Bowman’s beyond a patent’s reach, patentees—such as CropLife’s member companies—would face diminished incentives to develop valuable and extraordinary agricultural advancements and, in turn, bring them to market. And even if they did proceed to develop such advancements, if their patent rights could be bypassed, patentees would have little alternative to charging prohibitively high prices for them to adequately recover the costs associated with developing and bringing them to market. These advancements, many of which take the form of seeds and plants engineered or bred to contain desirable, heritable traits, are critically important. They not only help meet our ever-expanding population’s needs for food, fuel, and clothing, but, being “green technologies,” they also significantly reduce the environmental footprint associated with traditional farming practices.

Against such weighty interests, Bowman and his *amici* raise paltry concerns that are easily refuted. There is no risk of inefficiency, inconsistency, or inequity arising from the judgment upheld by the Federal Circuit. But there is a guarantee of such adverse consequences if that judgment is reversed.

#### **ARGUMENT**

Law and policy coincide in this case: both militate against treating Bowman’s actions as mere uses that are shielded by the patent-exhaustion doctrine. Bioengineered seeds capable of replication are expensive and valuable inventions, which are no less entitled to patent protection than any other.

**I. THE UNAUTHORIZED PRODUCTION OF SEEDS FROM PROGENY SEEDS IS A “MAKING” OF A PATENTED PRODUCT NOT SUBJECT TO PATENT EXHAUSTION**

This case asks whether the authorized sale of a patented seed—that is, a sale by the patentee or its licensees<sup>3</sup>—exhausts the patentee’s right to hold liable for patent infringement anyone who plants progeny<sup>4</sup> of that seed and produces, or “makes,” yet another generation of patented seeds. The Federal Circuit concluded that exhaustion does not reach such activities, cautioning that a contrary holding would “eviscerat[e]” the rights of patent holders like Monsanto. Pet. App. 14a.

**A. Monsanto’s patented seed constitutes a valuable invention worthy of patent protection**

How the soy beans at issue here differ from ordinary soy beans is crucial to this case. Monsanto’s soy beans do not occur in nature, but are the product of human invention. Using recombinant DNA techniques, Monsanto altered the natural genetic make-up of the soy bean so as to impart a novel and heritable trait to it. This is analogous to the way the bacteria of *Diamond v. Chakrabarty*, 447 U.S. 303 (1980), had been engineered via human intervention to have “oil-eating” properties.

Specifically, Monsanto’s patented seed is genetically modified to contain foreign bacterial DNA. The DNA expresses a foreign bacterial enzyme that confers gly-

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<sup>3</sup> This phrase is intended to refer to other seed dealers that have been licensed by Monsanto to sell the patented seed. Putting aside the issue of whether the grain-elevator operator that Bowman dealt with engaged in an “authorized” sale when it sold the commodity beans to Bowman, that entity is not a licensed seed dealer, but simply a grain-elevator operator.

<sup>4</sup> For purposes of this brief, “first-generation seeds” refers to the patented seeds sold by Monsanto and its licensees, and any and all descendants of such seeds shall be referred to as “progeny” seeds.

phosate resistance to soy plants. Glyphosate is the active agent in common herbicides, and resistance to glyphosate is a trait that soy beans found in nature do not possess. As a result, fields containing such soy plants (and which are also naturally infested with undesirable weeds or the remnants of a prior crop-planting) can be treated with glyphosate herbicide so as to selectively kill off everything except the glyphosate herbicide-resistant soy plants. See Pet. App. 4a.<sup>5</sup>

**B. Bowman engaged in an unauthorized “making”**

The Patent Act provides that

[e]xcept as otherwise provided in [the Act], whoever without authority makes \* \* \* any patented invention, within the United States \* \* \* during the term of the patent therefor, infringes the patent.

35 U.S.C. § 271(a). Because Bowman engaged in a “making” without authority, he infringed Monsanto’s patents. The judgment below should be affirmed.

1. *The word “making” in § 271(a) takes its ordinary meaning—“to bring about” or “cause to be”*

The term “make” has appeared in federal patent law since the beginning. It appeared in the very first Patent Act of 1790, ch. 7, § 1, 1 Stat. 109, 110 (granting the pat-

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<sup>5</sup> Genetic engineering is also used to impart to seeds and their derivative products traits other than herbicide resistance. Resistance to pests and harsh environmental conditions, improved product shelf life, and increased nutritional value are notable examples. This case, therefore, holds in the balance the extent to which a patent can control the propagation of *all* patented genetically-modified seeds, and its ruling will have far-reaching implications for how society can respond to the increasing demands of feeding, fueling, and clothing its ever-growing population and protecting our fragile environment. See *infra* Part II.A, C.

entee, “for any term not exceeding fourteen years, the sole and exclusive right and liberty of making \* \* \* the said invention or discovery”).<sup>6</sup>

The question, then, is what that key word means as used in the Act. The answer is that it conveys the plain and ordinary meaning of the word. As this Court put it a hundred years ago, “[t]he right to make can scarcely be made plainer by definition.” *Bauer & Cie v. O’Donnell*, 229 U.S. 1, 10 (1913). Indeed, absent some contrary indication, *any* term in the Patent Act is presumed to carry its ordinary, contemporary, and common meaning. *Bil-ski v. Kappos*, 130 S. Ct. 3218, 3225-3226 (2010).

And from the time of the first Patent Act up to the present, the ordinary meaning of “make” has encompassed the notion of “bringing about” or “causing to happen.” Dr. Johnson’s famous dictionary defines “make” as “[t]o create,” and “[t]o produce as the agent.” S. Johnson, *A Dictionary of the English Language* 1246 (1755). Both of those meanings encapsulate Bowman’s conduct in this case. Moreover, the meaning has remained static over the centuries, as the leading dictionary at the time of the Patent Act’s current codification shows. See Webster’s *New International Dictionary* 1485 (2d ed. 1957) (“[t]o form or fashion” or “[t]o cause to exist”).<sup>7</sup> Accord

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<sup>6</sup> The term subsequently appeared in the Patent Act of 1836, ch. 357, § 14, 5 Stat. 117, 123, which penalized “making \* \* \* the thing whereof the exclusive right is secured by any patent.” That concept has remained part of American patent law and since 1952 has been codified in its present form at 35 U.S.C. § 271(a). See Act of July 19, 1952, ch. 950, Pub. L. No. 82-593, 66 Stat. 792, 811.

<sup>7</sup> “Make” does not even appear as a term in Richard Burn’s well-known law dictionary. See 2 R. Burn, *A New Law Dictionary* 103-104 (1792). But Black’s *Law Dictionary* does contain an entry, which gives the term essentially its colloquial meaning. See Black’s *Law Dictionary* 1041 (9th ed. 2009) (primary definition of “make” is “[t]o cause (something) to exist”).

U.S. Br. 24 (citing Webster’s Third New International Dictionary (1993)).

Bowman—by his own admission—“brought about” and “caused” those commodity beans that were herbicide resistant to germinate and grow into herbicide-resistant soy plants, which, in turn, produced a next-generation of herbicide-resistant seeds. See Pet. Br. 42. Under any generally accepted definition, therefore, Bowman engaged in an unlawful “making” by producing copies of Monsanto’s patented seed.

2. *This Court’s Deepsouth decision does not depart from the ordinary definition of “making”*

In an attempt to escape from the inevitable finding that he “made” copies of Monsanto’s patented seed, Bowman relies on this Court’s decision in *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518 (1972). That decision, Bowman contends, narrows the meaning of “making.” *E.g.*, Pet Br. 41-42.

But *Deepsouth* addressed a question of geography—*where* a making must occur to be actionable—not of *what* threshold activities constitute a making. An act may well be a “making,” but if it does not occur within the United States, it is outside the territorial scope of § 271(a). *Deepsouth* decided that a making did not occur *in this country* when the individual components of a patented shrimp-deveining machine were exported for subsequent assembly into operative combinations *outside the United States*. 406 U.S. at 523, 528. A “making,” the Court held, requires the formation of an “operable assembly,” and that result was achieved—but only abroad, not here. See *id.* at 528-529.

The plaintiff in *Deepsouth* could therefore demonstrate that a “making” had occurred, but could not satisfy the *additional* statutory requirement that, to be action-

able, an operable whole must be “made” in America.<sup>8</sup> *Deepsouth* said nothing reflecting an intent to alter the broad, general definition of “making” described in *Bauer*. It certainly did nothing to suggest that acts of “bringing about” an “operative whole” or “causing” an “operative whole to be formed” are not “makings.” Rather, the Court observed that the ordinary definition simply did not resolve the geographic question presented by the case. 406 U.S. at 527-528.<sup>9</sup>

The geographic principle articulated in *Deepsouth*, of course, has no application here. There is no dispute in this case that every relevant aspect of the “making” occurred in the United States—in Bowman’s home state of Indiana. *Deepsouth* provides Bowman no shield.

**C. Bowman offers no other persuasive argument as to why he did not engage in a “making”**

To avoid liability as an infringer, Bowman asserts that “it was the planted soybean[s], not [he],” that engaged in the “making” of Monsanto’s patented invention. Pet. Br. 42.<sup>10</sup> Bowman modestly claims that he did little more than “assist” commodity beans possessing herbicide re-

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<sup>8</sup> Incidentally, Congress abrogated the holding of *Deepsouth* by enacting 35 U.S.C. § 271(f), under which someone is now liable for infringement by engaging in the very kind of export-for-assembly activity at issue in *Deepsouth*.

<sup>9</sup> Even if the deveining devices had been assembled in the United States, *Deepsouth* would not have been liable for making them, because its customers, not *Deepsouth* itself, were responsible for actually making the operative whole. Nonetheless, had *Deepsouth* provided the materials to customers for assembly in the United States, the Court agreed that *Deepsouth* would have been liable for contributing to and inducing infringing acts. See *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 418, 526 (1972).

<sup>10</sup> Bowman’s argument is premised on narrowly construing a “making” to exclude acts of “bringing about” or “causing to be.” Cf. *supra* Part I.B.

sistance in the direct acts of creating next-generation seeds. *Ibid.*

This strained argument must fail. Bowman and all farmers are far more than “assistants”—they are *growers*, actively working to ensure that the seeds and beans they sow grow successfully into plants that produce progeny seeds. But the end result does not change even if one accepts Bowman’s argument. Bowman would still be liable under agency-and-instrumentality principles for the acts of the soy beans he planted and the soy plants grown from them. Bowman’s additional argument that he at most should be treated as akin to a joint-tortfeasor has the virtue of acknowledging some potential liability.<sup>11</sup> But that argument should be rejected given its unappealing implications and severe drawbacks, as described below. Ultimately, the only sound course is to recognize Bowman’s liability as a direct infringer.

1. *Agency principles would attribute to Bowman the making of seeds by the plants he cultivated*

As described in Part I.B, *supra*, the concept of “making” has historically been broad. But the result would not change here even if that concept were narrowly limited to direct acts that proximately cause the creation and assembly of an operative whole. In this case, such direct acts were technically performed by the herbicide-resistant plants grown from the commodity beans that Bowman purchased, planted, and cultivated. But people can be held accountable under agency principles for the actions of instrumentalities they control. See, *e.g.*, Restatement (Third) of Agency § 1.04, cmt. e (2006) (treating non-persons, such as a dog or cat, as instrumentalities of the persons who control them and holding such

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<sup>11</sup> According to Bowman, he should at most be treated as an indirect infringer, liable for induced or contributory infringement, under 35 U.S.C. §271(b)-(e). See Pet. Br. 39-40, 42.

persons liable for the actions of these instrumentalities). Hence, under this theory, Bowman would still be held constructively liable for impermissibly making a next-generation of patented seeds.

That is because the plants that Bowman grew from the commodity beans were instrumentalities under his control.<sup>12</sup> Agricultural science has taught humankind how to exercise dominion and control over plant life. Farmers do not passively await a bean's or seed's spontaneous self-replication, as if today's farmers were "gatherers" from a prehistoric civilization. Rather, they have an intimate and active relationship with the beans and seeds they plant, causing them to germinate, and cultivating the resulting plants—all in particular places, at particular times, and under particular conditions. Moreover, beans and seeds do not fully control their own propagation. Such propagation only occurs when they are exposed to an appropriate combination of external conditions involving light, carbon dioxide, temperature, and water.<sup>13</sup>

Like any farmer, Bowman deliberately undertook affirmative steps to expose the commodity beans he purchased to such conditions, aiming to maximize his yield and profit. He chose the appropriate time to plant; sowed the beans in a particular fashion to achieve germination; and tended to the resulting plants by fertilizing and irrigating the ground and by applying pesticides. Indeed, he admits that he did all of these things while "hop[ing]" and expecting that some proportion of the

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<sup>12</sup> This situation contrasts with the one featured in *Deepsouth*, where the purchasers of the patented deveining devices were acting on their own accord and not as instrumentalities or agents of the accused supplier of the devices' components.

<sup>13</sup> See Royal Tasmanian Botanical Gardens, Seed Germination Requirements, at <http://www.rtbg.tas.gov.au/index.aspx?base=287>.

commodity beans he planted would be patented beans possessing the trait of herbicide resistance. Pet. Br. 8.

Based on that expectation, Bowman undertook the affirmative step of applying herbicide to his fields, knowing that it would have the effect of exploiting Monsanto's technology by selectively encouraging the growth of plants *only from patented beans that possessed the herbicide-resistance trait*, while killing everything else. See Pet. App. 9a-10a. As Bowman correctly states, "[c]ommodity grain can be dirty, containing a relatively high content of debris, seeds from other crops, and weeds," and it "lacks uniformity in maturity rate, disease resistance, drought resistance, and other beneficial traits." Pet. Br. 5. Bowman disposed of those undesired components by treating the entire field with herbicide, thus producing only herbicide-resistant seeds. He essentially took commodity beans, a heterogeneous mixture likely containing a large proportion of patented beans possessing the herbicide-resistance trait, and, from that, created a next-generation of seeds *exclusively* comprising a homogeneous population containing that trait.<sup>14</sup> Any further "makings," using the seeds he produced (or their progeny), therefore, would even more efficiently infringe Monsanto's patents.

Bowman offers no compelling reason for either treating the acts of a seed or a plant differently from those of

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<sup>14</sup> Bowman's use of herbicide was not critical for him to engage in an impermissible making of a next-generation of herbicide-resistant seeds inasmuch as some population of next-generation herbicide-resistant seeds would have been produced even without the use of herbicide. The use of herbicide was, however, critical to his controlling weed infestation and growing a homogenous herbicide-resistant crop bearing a homogenous population of herbicide-resistant seeds for his future use. These and other conscious acts distinguish him from the hypothetical "innocent" farmer who does not realize that he is growing such seeds in his field. See *infra* Part II.B.2.

other instrumentalities or for more generally abandoning the traditional view that persons can be liable for the acts of instrumentalities under their control. Given the significant degree of control he exercised and the considerable benefit he derived from his actions (the creation of herbicide-resistant soy plants bearing a next-generation of herbicide-resistant seeds, unencumbered by competition from weeds), it is entirely fitting to attribute the act of seed production to Bowman. That result is exactly what he intended and achieved.

2. *Bowman's position would deprive patentees of a cause of action for direct infringement*

Bowman's position that the herbicide-resistant soy plants grown from commodity beans were the direct infringers, not Bowman himself, would have another undesirable consequence: it would leave Monsanto with no legal recourse against *any* direct infringer.

Eliminating direct-infringement suits would severely limit the enforcement rights conferred by a patent. Direct infringement under § 271(a) is easier to prove than induced or contributory infringement under § 271(b)-(c), by virtue of requiring fewer elements of proof. Direct infringement is predicated on a theory of strict liability, whereas induced and contributory infringement require showing both the presence of an underlying act of direct infringement *and* that the accused had a specific intent to aid and abet the direct infringement. See *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2066-2068 (2011). This distinction is neither trivial nor novel. See H.R. Rep. No. 82-1923, at 9, 28 (1952); S. Rep. No. 82-1979, at 8, 28 (1952).<sup>15</sup>

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<sup>15</sup> Both reports note that § 271(b) recites in broad terms that one who aids and abets an infringement is an infringer and that § 271(c) focuses specifically on the typical fact-pattern in which such aiding and abetting arises.

Moreover, Bowman is incorrect in asserting that holding farmers like him liable as direct infringers renders § 271(b)-(c) “superfluous.” See Pet. Br. 14, 40. Those who aid and abet farmers in carrying out the activities Bowman engaged in can indeed be liable in the same way joint-tortfeasors are. For example, even if someone like Bowman were considered the direct infringer, those who improperly sell herbicide-resistant progeny seeds or glyphosate herbicide for use in treating plants derived from such seeds could be held liable for inducing or contributing to a farmer’s direct acts of infringement. In reality, it is *Bowman’s* approach that renders a statutory provision superfluous in this context—he eliminates a direct action under § 271(a).

## **II. POLICY IMPLICATIONS FAVOR MONSANTO**

Bowman argues that wise policy and the adverse consequences of the Federal Circuit’s judgment militate in favor of reversal. The opposite is true.

### **A. Reversing the Federal Circuit will impair the development of undeniably useful inventions with nothing gained in return**

If Bowman’s arguments are accepted, the rights of patentees like Monsanto will be “eviscerat[ed],” Pet. App. 14a (internal quotation omitted), stalling the invention of valuable bioengineered seeds, which, in turn, will translate into there being fewer such products for farmers like Bowman to use and fewer agricultural products to meet our population’s needs.

To be sure, there are competing interests: the right of a patentee to preserve the exclusivity conferred by a patent versus the right of the consumer to freely enjoy the use of a patented article that is the subject of an authorized sale. The Federal Circuit struck the proper balance between those interests, ensuring that our society and environment enjoy the benefits of agricultural inventions

like Roundup Ready<sup>®</sup> soy beans.

Monsanto is by no means alone in developing seeds and plants that are genetically modified. Many others, including members of CropLife, have been active in the area. The list of relevant products extends well beyond soy beans, to include other important staples, such as tomatoes, cotton, corn, canola, squash, potatoes, alfalfa, papaya, and sugar beets. The International Service for the Acquisition of Agri-biotech Applications has a database of approved genetically-modified developments by crop, available at <http://www.isaaa.org/gmapprovaldatabase>.

These developments are part of a “green revolution” that will help feed, fuel, and clothe the world’s population, which is estimated to grow by over 20% (or over 1 billion people) over the next 7 years.<sup>16</sup> Using recombinant DNA techniques to impart herbicide and insecticide resistance (among other things) to cultivated plants has enabled farmers to increase their crop yields (the reason Bowman wanted the patented seeds) while simultaneously reducing the environmental footprint of agricultural activities.

Accordingly, farmers have been successful in adopting sustainable reduced-till or no-till farming techniques and reducing their dependence on pesticides. The shift from tilling (a traditional approach for dealing with weeds) to reduced-till or no-till practices was recently estimated to translate into removing 1.205 billion kg of carbon dioxide from the atmosphere or the equivalent of 6.9 million cars from the road for one year.<sup>17</sup> Similarly, the use of geneti-

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<sup>16</sup> See Soils, Society & Global Change, Proceedings of the Int’l Forum, 53 (2007), available at [http://eusoils.jrc.ec.europa.eu/esdb\\_archive/eusoils\\_docs/other/EUR23784.pdf](http://eusoils.jrc.ec.europa.eu/esdb_archive/eusoils_docs/other/EUR23784.pdf).

<sup>17</sup> See Brookes & Barfoot, Global Impact of Biotech Crops: Environmental Effects, 1996-2008, 13 J. Agrobiotech Mgmt. & Econ. 1:76, 87 (2010), at <http://www.agbioforum.org/v13n1/v13n1a06-brookes.htm>.

cally-modified crops has translated into a 352 million-pound reduction in the amount of herbicide and pesticide used to treat crops between 1996-2008.<sup>18</sup>

Companies like Monsanto and those that comprise CropLife are expending hundreds of millions of dollars and rely on a massive work-force to research, develop, sell, and market innovative genetically-modified seeds and plants. These investments improve our society and environment, but the benefit of an enforceable patent position (and the exclusivity it affords) is a chief means for recouping those hefty investments. Patent exclusivity—and the consequent right to prevent others from engaging in the very acts Bowman did—therefore provides an important incentive to employ individuals and expend the time, energy, and resources necessary to bring such innovations to market. The positions that Bowman and his supporting *amici* urge would inevitably diminish that incentive, and reduce the critical advancements and benefits it spurs on for our society and environment.

**B. The judgment below does not create patent-law inefficiencies, inconsistencies, or inequities**

Some of the *amici*, particularly the Public Patent Foundation (PPF) and Knowledge Ecology International (KEI), assert that holding farmers liable for making patented progeny seeds in circumstances like Bowman's would create certain inefficiencies, inconsistencies, and inequities under the patent law. The judgment below has no such consequences.

1. *Producing progeny seeds from commodity beans is wholly distinct from producing them from first-generation authorized seeds*

PPF seeks to paint the Federal Circuit's ruling as having the consequence that *every* production of patented

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<sup>18</sup> See *id.* at 78.

progeny seeds would infringe the patent. PPF, in other words, sees no distinction between what Bowman did (make the patented progeny seeds *from commodity beans* that were purportedly the subject of an authorized sale) and what the ordinary farmer does (produce progeny seeds *from patented first-generation seeds* purchased from Monsanto or its licensees). See Br. for PPF as *Amicus Curiae* 5-8.

But the commodity beans sold in the secondary market (particularly by a grain operator such as the one Bowman purchased beans from) are hardly on the same footing as patented first-generation seeds sold by Monsanto and its licensees. The *principal utility* of patented first-generation seeds is for use in planting and producing second-generation seeds, which the farmer can sell as commodity beans. See Pet. Br. 35 (“[P]lanting is the only intended use for [first-generation] Roundup Ready® seeds.”). Indeed, farmers purposefully go to, and our state and federal governments expect farmers to go to, seed dealers like Monsanto for seeds for planting because such sources reliably provide a quality-controlled, homogeneous product with well-characterized and defined properties, making it suitable for planting. There is no question that farmers can plant such seeds and produce progeny seeds from them without infringing Monsanto’s patents; Monsanto and its licensees explicitly condone such activities in the Technology Agreement. Indeed, farmers reasonably expect to be able to engage in such activities, as such activities provide value to their purchasing patented first-generation seeds.

And that’s the point: unlike patented first-generation seeds provided by Monsanto and its licensees, the principal utility of commodity beans is *not* for planting, because they are an undifferentiated mix of beans, weeds, and debris from around a region. They are not subject to the quality controls of first-generation seeds and by their na-

ture cannot provide the assurances that farmers and the government demand of seeds for use in planting. Rather, commodity beans' principal utility is for use as animal feed or in making food products for humans (ranging from tofu to baby formula and beyond). See Pet. App. 14a; see also North Carolina Soybean Producers Ass'n, Inc., *How Soybeans Are Used*, available at <http://www.ncsoy.org/ABOUT-SOYBEANS/Uses-of-Soybeans.aspx>; Iowa State University Soybean Extension and Research Program, *Soybean Uses*, available at [http://extension.agron.iastate.edu/soybean/uses\\_soyproducts.html](http://extension.agron.iastate.edu/soybean/uses_soyproducts.html). Those uses may be freely practiced. By contrast, Bowman's use of commodity beans *for planting* was a highly unorthodox practice, and one that openly sought to avoid the cost of buying patented first-generation seeds from Monsanto or its licensees while still exploiting the considerable benefits of Monsanto's patented invention. See *Monsanto Br. 5 n.5*; *Br. for Am. Soybean Ass'n as Amicus Curiae*, at §H.

Moreover, a farmer like Bowman, who purchases patented first-generation seeds from Monsanto or a licensee, can, plant those seeds, produce and harvest the resulting second-generation seeds, and then sell those seeds on the secondary market. What that farmer may *not* do is use patented progeny seeds to engage in a new "making" of Monsanto's patented seed without Monsanto's consent. The two situations are clearly distinguishable; they are the very epitomes of non-infringing and infringing acts.<sup>19</sup>

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<sup>19</sup> This framework preserves a cause of action under § 271(a) for unauthorized "makings" that are separate and distinct from "uses," whether those uses are authorized or not. It is also consistent with the principles of patent exhaustion because—so long as a use does not take the form of making more patented seeds—it allows any use of patented seeds made available to the market to be freely practiced, whether the seeds are first-generation or otherwise.

2. *Farmers have sufficient notice of liability for cultivating patented progeny seeds*

KEI raises a separate point, arguing that farmers have no notice or knowledge that they possess patented progeny seeds—seeds that may not be planted without infringing Monsanto’s patent rights—because there is no “marking” on the seeds. Br. for KEI as *Amicus Curiae* 10. But that concern is illusory, because it ignores the channels through which farmers acquire seeds for planting. Bowman’s resort to a grain elevator to purchase commodity beans *for planting* was an aberrational practice at the least and gamed the system by accessing patented seeds on the cheap. Farmers conventionally obtain seeds for planting by purchasing them from seed dealers—such as Monsanto or a licensee. See Monsanto Br. 6 n.6; see generally Am. Soybean Ass’n Br., at § H.

This practice obviates KEI’s worry. Farmers know whether they are purchasing patented seeds because they may do so only upon entering into a Technology Agreement. And such an Agreement puts farmers on notice that they cannot plant the progeny seeds they produce. See Pet. App. 7a.

KEI also asserts that, as a result of cross-pollination, farmers expose themselves to patent liability by unknowingly cultivating herbicide-resistant progeny seeds, and, in turn, propagating such seeds anew. See KEI Br. 10. KEI’s proposed solution to this purported problem is to deem *all* patent rights in *all* progeny seeds exhausted. See *id.* at 9. That is an overreaction, throwing the proverbial baby out with the bathwater.

Monsanto has not sued farmers engaging in purely innocent accidental acts of infringement—farmers who had no knowledge that a progeny seed blew in with the wind, for instance. See Monsanto Br. 7, n.7; U.S. Br. 26, n.7. And that is for the simple reason that *innocent* acts

would not exploit the aspect of the progeny seeds that is valuable—the ability to treat an entire field with herbicide and use that as a means to selectively grow and harvest herbicide-resistant soy plants and seeds. The hypothetical innocent farmer who accidentally grows Monsanto’s patented seeds would have no reason to deviate from whatever agricultural methods he would otherwise use—which, unless he had already legitimately obtained Monsanto’s patented seeds, would *not* include wholesale treatment of a soy crop with herbicide. Because such a farmer is not exploiting the advantages of the patented seed, *i.e.*, herbicide resistance, there is little incentive to hale such an individual into court for patent infringement.<sup>20</sup>

But there is a substantial risk that if Bowman’s position is adopted, the opposite will happen—farmers will rush to follow Bowman’s lead and deliberately take advantage of the herbicide-resistance trait present in patented progeny seeds available in the secondary market. Bowman, unlike the innocent farmer, *aimed* to obtain patented seeds on the cheap and to plant them without having to pay tribute under Monsanto’s patents. Those engaging in such makings are infringing Monsanto’s patents, and—unlike the innocent farmer—should be held accountable.

Even if patentees like Monsanto *did* have a practice of suing innocent growers, KEI’s remedy would still be far too broad. Any judicial response should be narrowly tai-

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<sup>20</sup> Even if innocent farmers did face a genuine threat of suit for engaging in arguably *de minimis* acts of infringement, the limited scale of such infringing activity can be properly addressed as it is in all settings where *de minimis* infringement is at issue, *i.e.*, by fashioning a damages award that is proportional to the injury actually caused. See *Integra Lifesciences I, Ltd. v. Merck KgAa*, 331 F.3d 860, 864 (Fed. Cir. 2003).

lored to address the prosecution of such suits, not take the form of a general rule of law that immunizes the planting and cultivation of herbicide-resistant progeny seeds under all circumstances, no matter how culpable. That would, as the Federal Circuit correctly observed, “eviscerat[e]” the rights conferred by Monsanto’s patents, and be a powerful disincentive to the further development of valuable agricultural technology.

**C. A ruling in favor of Bowman would sweep far more than seeds in its wake**

If this Court were to reverse the judgment below, such a ruling would affect—and greatly expand—the patent exhaustion of all technologies capable of resulting in “self-replication,” including live vaccines, recombinantly engineered cells, and transgenic animals. A blanket rule that holds that an authorized sale of such non-naturally occurring inventions permits a *subsequent* generation to be freely used to make an *even-later* generation will gut the rights afforded by patents protecting the underlying invention. Hence, a judgment in this case will either advance or retard the development of, and the public’s access to, extraordinary new inventions of tremendous social, economic, and environmental value. The Federal Circuit’s judgment protects inventors without harming purchasers. Its judgment should be affirmed.

**CONCLUSION**

Bowman’s liability for engaging in impermissible “makings” is wholly consistent with the reach of 35 U.S.C. § 271(a). He planted and cultivated commodity beans to grow herbicide-resistant soy plants that produced a next-generation of herbicide-resistant seeds. Immunizing such conduct under an expansive view of patent exhaustion would simultaneously depart from governing law and jeopardize the very benefits genetically-modified seeds and plants provide. Those benefits are worth keeping. They include creating jobs; helping

our society, and the world, meet an ever-expanding need for food, clothing, and energy; and protecting the environment from the pollution generated by traditional farming techniques. For the foregoing reasons, this Court should affirm the judgment below.

Respectfully submitted.

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