



2024 Investor Day

November 19, 2024

Kim Booth:

Good morning, and thank you for joining us. I'm Kim Booth, head of Investor Relations for Corteva. It's great to have you here today. We have prepared presentation slides to supplement our remarks during this call, which are posted on the Investor Relations section of the Corteva website and through the link to our webcast. We'll open up this morning hearing from Chuck Magro, chief executive officer, Brook Cunningham, senior vice president and chief strategy officer, and Sam Eathington, executive vice president, chief technology and digital officer, followed by a Q&A session.

We will then hear remarks from Tim Glenn, executive vice president, Seed Business Unit, and Robert King, executive vice president, Crop Protection Business Unit, who will then be joined by Dave Anderson, strategic advisor to the CEO for a panel discussion. Finally, David Johnson, executive vice president and chief financial officer will speak to our financial framework before we proceed to a final Q&A session with all the leaders. For those of you in the room, we will wrap up the day with an R&D Showcase. During this call, we will make forward-looking statements, which are our expectations about the future. These statements are based on current expectations and assumptions that are subject to various risks and uncertainties.

Our actual results could materially differ from these statements due to these risks and uncertainties, including but not limited to those discussed on this call and in the risk factor section of our reports filed with the SEC. We do not undertake any duty to update any forward-looking statement. Please note in today's presentation, we will be making references to certain non-GAAP financial measures.

Reconciliations of the non-GAAP measures can be found at the end of this presentation or in other investor materials available on our Investor Relations website. After a short video, Chuck will take the stage to kick off the day's events. Welcome to Corteva's 2024 Investor Day.

Voice-over:

From plant genetics to biology and agronomy, farming has always been about technology. And from the earliest days of farming, people have been using technology to breed plants that grow more food. Today, we are asking farmers to do more with less in ways that we never have before. Climate change, extreme weather, the spread of pests and disease, two billion more people who need safe, high-quality food, but on roughly the same amount of land. In short, at a time when the world needs more food, that food is getting harder to grow.

This is one of the world's toughest challenges, and now agro- With roots and experience that stretch back nearly a century, Corteva is ready to deliver, from gene editing to biofuels, biologicals to new agricultural systems, and artificial intelligence to precise agronomic insights, combined with a dedication to make farmers and farming more productive, more profitable, and more sustainable. We think this

could be the next ag revolution, delivering innovation that keeps pace with the world's toughest challenges. That is the future at Corteva.

Announcer:

Please welcome Chief Executive Officer, Chuck-

Chuck Magro:

Good morning, everyone. Welcome to New York, and welcome to our second Investor Day. As most of you know, we held our first Investor Day back in 2022. Man, time flies, doesn't it? And this year, you're probably aware Corteva turned five years old, so we're a relatively new company still.

A lot's happened in the last few years, and I'd like to start by certainly thanking you for coming and for your interest in Corteva. I'd also like to thank our incredible employees who have been along with us on this wonderful journey. I plan to cover three key topics for you to set the stage for the entire day. First, I'd like to tell you about our company and what makes us such an important part of global agriculture and an attractive investment, today and in the future, including our track record of delivering for farmers and for our shareholders. Second, I'll spend some time on the future of ag as we see it, so longer term.

Think beyond 2030, including the potential for our next generation of technology, which of course, we are already working on. Specifically, I want to talk about six growth platforms that will reshape our company and agriculture, and in doing so, create significant value. And finally, I'll lay out the next generation of our value creation framework for the next three years out to 2027. This will continue the path we've been on for several years now, and for those that are attending the Innovation Showcase this afternoon, you'll get to see some of this work up close. So with that, let's get started.

Corteva is a critical company in an indispensable industry. We were created to be, and we remain a pure play ag technology company whose only focus is putting game-changing innovation into the hands of farmers, and in doing so, help them feed and fuel the world. We operate in more than a hundred countries and are proud to serve about 10 million farmers, and through the Pioneer brand, one of the most trusted in the world, today, we are home to the number one corn and soybean brands in the United States. Thanks to our recent investments, we're also one of the largest biologicals companies in the world. This is a trend that is gaining significant momentum like it did in the pharma industry.

And when you combine all of this with our world-class research and development organization, today, we launch about 400 new products into the market in any given year, putting much-needed tools and technology into the hands of farmers. Now, strategically, we made the move to implement a series of deliberate decisions to position Corteva at the forefront of three global challenges. First, global food security. The world is adding nearly two billion people in the next 25 years. How do we increase our food production to feed all these people?

We think the answer is technology. Climate change, rising temperatures mean more droughts, more floods, new pests, weeds, and disease, and the old pests and disease. They're making their way to new regions around the world. We see this now every year. Food, simply put, is getting harder to grow, right when we have more mouths to feed.

Again, we think that the answer is technology. And finally, the energy transition away from fossil fuels. Biofuels need to be part of the solution here, and many governments around the world understand this. And by the end of the next decade, we expect demand for next-generation biofuels in North America and Europe alone will reach 22 billion gallons, a four-time increase from today. Again, agriculture needs to be part of the solution.

So Corteva now is in a position to leverage and benefit from these realities, and to deliver for our customers, our shareholders, and society at large. To level-set where we're going, let's first look back at where we started. When Corteva was launched in 2019 as a standalone company, bringing together the ag divisions of both Dow and DuPont, we not only have to create a brand new publicly traded company, but also chart a new path forward. And as I said just a minute ago, our business today is the result of a series of strategic decisions we made starting in 2022, smart portfolio and geographic cuts, exiting the more commodity-like products, and the markets that don't value technology. We progressed along our path to become seed royalty neutral.

Today, we're about 70% of the way there, with a clear path to hitting our goal of neutrality by 2028, and now, net positive thereafter. We also made some smart investments. We entered the biologicals market, and we ramped up our investment in research and development, ensuring our pipeline was as robust as the challenges farmers face today. Enlist market acceptance has delivered beyond our expectation. In just a few short years, we've become the trait leader in U.S. soybeans, and now, we're turning our attention to Brazil with that same goal in mind.

Most importantly, we delivered on bottom-line margin expansion, increasing our margins by over 300 basis points in just three years. I'd also like to add, over the past five years, we've been fostering a culture that keeps the best parts of our heritage, collaboration, people and customer first. That's what makes Corteva such a great place to work, but we've also added a little bit of something new, the performance edge, the entrepreneurialism, smart, informed risk-taking characteristics. These are needed by technology companies in today's world. Overall, I'd have to say not bad for five years old.

Now, I want to acknowledge we didn't hit all of the metrics that we set for ourselves back in 2022, namely achieving the EBITDA range. When I look back at 2022, what we didn't anticipate was the crop protection destocking and the pricing declines would limit the CP industry's ability to grow during that period, but of course, nobody did. For two out of the past three years, the CP industry has been in a cyclical decline. This is not an excuse, it's just the reality that we've been operating in. Other than CP, almost every other element of our three-year plan has been either achieved or exceeded.

Now, if you look back at the results on an absolute basis, we've done a pretty good job. Over the past five years, we've launched approximately 2,000 new products, delivered technology backed by more than 7,000 added patents, increased our annual operating EBITDA by over 1.3 billion. So that's a 10% kegger. Yes, it's below our original plan, but still double-digit growth. We've also grown our EBITDA margins more than 500 basis points since 2019, another remarkable feat in itself.

We also focused on controlling our controllables. This is a mantra we have inside of the company, which is now ingrained into our culture. In fact, we've delivered above and beyond our own high expectations. Oh, and from 2019 to 2023, we returned about \$4.8 billion in cash to shareholders. I think that those results should speak for themselves.

Finally, to wrap up this section on Corteva, so what makes us unique or special? In other words, what makes Corteva Corteva? First and foremost, our technology. Corteva is home to the best germplasm and some of the best active ingredients in the world, and maybe I'm biased here, but also some of the best scientists in the world. Innovation is not just in our products, it's in our culture.

It's how we think and it's who we are, and it should be. We've been doing this now for almost 100 years, and today, our pipeline in both seed and CP, I believe is second to none. Second, how we bring the technology to market, thousands of patents and over 65 actives. We have the technology and we know how to bring it to the market. When I look at what it takes today to bring a new seed hybrid to a farm in France, or a new fungicide to a farmer in Brazil, and to ensure that that technology in that bag or in that jug will drive yield or protect the crop as intended.

Well, let's just say there's not many companies on the planet with that fully integrated capability. Why? Because it's not easy to discover something novel, scale it, produce it, receive all the government approvals that are required, and deliver the technology into a hand of a farmer around the world. And third, add it to all of this is our Pioneer brand. I call this the Pioneer Promise.

A farmer can expect the very best technology with on-farm, personalized support and service, and we are bringing complete solutions to the more and more. Pioneer is one of the most valuable assets we have at Corteva. I'd also like to note here that our multi-channel brands, like Brevant, and our other regional and licensing brands have also had a big impact on our results in a short period of time. And, of course, we remain fully committed to bringing the best technology to these brands, and you might ask yourself, "Why?" And the simple answer is farmers deserve to have choices.

When I think about how the company was built, the scale and leverage benefits that we hold from being a global ag technology company with both a seed and CP platform, while these include, both of these are essential or non-discretionary products and technologies. We have a common customer and crop focus, a unified approach to innovation and regulatory approvals, and a channel to market that can absolutely be leveraged, not to mention, a strong balance sheet. On seed, I'd say we have the best seed business in the world today. It starts with our germplasm and over a hundred years of breeding. It's the best thanks to our biotech traits we offer, our industry-leading root to market, and our extensive IP portfolio.

This business has many layers of differentiation and protection, which has enabled it to grow consistently through the ups and downs of the ag commodity conditions. It's a very special business that has continued to deliver double-digit EBITDA growth with an impressive return on capital. And for the next three years, we expect meaningful cost deflation to flow through this business. In crop protection, we are really building a new business, more unique and differentiated technology with an asset footprint that is both lower cost and more nimble. We still have some work to do on this front, but so far, I think the results have been solid.

Our CP business, like the CP industry overall, is certainly not immune from the market dynamics we've seen since 2023, but our EBITDA margins have outpaced our peers during this period of imbalance in the market. In fact, we've grown our CP EBITDA margins by a couple hundred basis points while our peers had margin erosion in that same period of time, and Robert will share more of this just a little later. When you put these businesses together with a single innovation engine in an advanced channel to market, and remember, they have the same customer base, you can see that we can bring a powerful set of integrated solutions to the farm under one banner, Corteva. Just look at the Enlist system, approaching 1.8 billion in sales- Technology solution, both the Enlist seed, in the proprietary herbicide, a fully integrated system all from Corteva.

Before moving to our growth platforms, a quick word on digital and artificial intelligence. We are, at our core, a science and innovation company. We have several hundred AI initiatives underway, and we see a real potential to strengthen our overall business performance. In very short order, we have now built our first Corteva-branded AI model for agronomy. We call it CARL, which stands for Corteva Agronomic Research Library.

Now, I've personally used this tool and believe that we are onto something exciting here. CARL will be used by our field agronomists and channel partners to bring almost 100 years of data and science to farmers around the world. Imagine that kind of information at your fingertips. I can imagine the possibilities here. Let's now move to my second topic, how Corteva is focused on transforming agriculture through technology.

To me, this is where things get exciting. We have six growth platforms directly tied to addressing the three global challenges I discussed earlier. We believe that these platforms will deliver for farmers and

for the planet, and will drive significant value in both the short and medium-term. I will also note that these platforms are built upon a strong foundation of our existing businesses, both the seed and CP businesses, that has delivered for our customers and shareholders for many years. In seed, this includes our continued genetic gain through our annual germplasm refresh program, but also, even more transformational introductions, like our reduced-stature corn, which will come to the market very soon in 2027, and is showing very good progress.

For crop protection, continuous improvement will take the shape of new products and formulations with an ongoing focus on differentiation. Both businesses have significant cost, productivity, and deflation expectations through the 2027 time frame, which I'll cover in just a few minutes. But as we look to the future, we are equally focused on these six growth platforms, seed out-licensing, biologicals, CP new products, gene editing, biofuels and hybrid wheat. These platforms will, each in their own way, help the world meet the challenge of growing more food to feed a growing population. They will help farmers adapt to the changing environment, and they will help address the need for next generation renewable fuel.

Simply put, they very well might change the very nature of how we farm, and they will also expand Corteva's addressable markets, adding billions of dollars to agriculture over time. You will hear about these growth platforms today in almost every presentation, but let me take a minute to give you a sense of timing and our financial expectations. We expect the first three, so out-licensing, biologicals and CP new products to continue to deliver and grow in value. None of these three are new. We've been talking about these for some time now, and each have contributed to Corteva's success in the last two to three years, but we now expect by 2027 the three combined will add a billion dollars of incremental revenue.

Specific to out-licensing, this is essentially a new business for Corteva. The addressable market is huge, approximately \$4 billion globally, and we are just getting started. We've moved closer in the past four years from being a technology buyer to now a technology seller, reducing our net royalty expenses by nearly \$450 million. But we're not done yet. We now expect to achieve net-zero royalties by 2028 and be net positive thereafter.

And to me, there is no reason why we can't earn our fair share of the market over time. Our technology is as good or better than the others. On biologicals, we're positioning ourselves to grow to a billion dollars in revenue by the end of the decade, so that's essentially doubling our biologicals business. This continues to be the fastest-growing segment in the crop protection market, and we are now one of the largest biological companies in the world. We also have an Aggressive U.S. Expansion program launching this spring, and look forward to bringing this much needed technology to American farmers.

And last but not least, our CP new products are expected to drive a significant amount of the billion dollars of incremental revenue by 2027. We have several newly introduced molecules that are continuing to ramp up, including Adavelt and ReKlemel. We are also introducing what is expected to be a blockbuster fungicide, we call it Haviza in 2026, to combat Asian soybean rust, which is a multi-billion-dollar pest problem. In total, we plan to introduce 150 to 200 new CP products each year for the next three years. The other three, gene editing, biofuels, and hybrid wheat have the potential to be billion-dollar revenue opportunities each, which we find to be very compelling.

They will have less of an impact on the 2027 financial projections, but will become key drivers of value creation towards the late decade, and certainly into the next decade. These three will be the growth engines for tomorrow. Let's start with gene editing. Gene editing is one of the most transformative technologies our industry has seen in the past half century. This technology could, with wide adoption, change the very way we farm, and importantly, meaningfully address the world's food security and climate challenges.

Gene editing can safely and effectively increase yields, help farmers adapt to climate change, and grow more healthy or nutritious food. We think the promise of gene editing is nearly limitless. Corteva has the most expansive crop IP estate in gene editing outside of the country of China, and we are ramping up both our internal and our external investments to cement our leadership. We expect to bring our first gene-edited corn product to the market approximately two years after we have regulatory approvals from the major commodity importers, and Sam will talk more about this in his talk. Turning the biofuels.

It won't be news to anyone to hear that the world is undergoing an energy transition away from fossil fuels to cleaner renewable sources. This transition will likely take decades, but the transition has started and is well underway. Many governments and experts around the world believe that biofuels are critical to this transition, particularly in the short and mid-term, and I'm pleased to say that Corteva is already a leader in this arena. Our winter canola pilot program, this is a partnership with Bunge and Chevron, exceeded initial expectations with farmers, delivering excellent yields and economic returns. What this proves is that double cropping a fuel crop is more than just viable.

It's also profitable. And due to the success, next year, we'll be expanding the program across the American Mid-South. And just yesterday, we announced our intent to partner with BP to create a joint venture to deliver biofuel feedstock to meet the rapidly growing demand for sustainable aviation fuel in the European Union. This is a massive opportunity, and if third-party estimates are correct, demand for next-gen biofuels could reach 10 billion gallons by 2030. That's double of today's levels, and Brook will unpack this more in just a couple of minutes.

Now, turning to wheat. Many people think that wheat is a low or a non-technology crop. Today, we plan to talk about how we intend to change that perception. Just to set the base, conventional wheat is grown on nearly 550 million acres around the world. It accounts for 20% of calories consumed.

It is certainly the largest crop by planet area, and it is a staple food for billions of people. In our industry, nearly every company has or had a version of hybrid wheat, but our hybrid wheat uses a different proprietary sterility system, which Sam will cover today. But the biggest difference, at least to me, is ours works, and it works a lot better. The sterility system has been the reason why hybrid wheat hasn't been economic for farmers to use for all these years. Our hybrid wheat technology is expected to increase yields by 10 to up to 20%, having a significant ramification for both farmers in the world's wheat supply.

Our hybrid wheat now is currently in trials. The results look very good, and we are gearing up for a launch in 2027 with our first class of hybrids, and then, of course, ramping up from there. We believe that this is a billion-dollar revenue opportunity for Corteva and another profitable option for farmers, and it can help our world take a meaningful step towards global food security. Again, a win-win-win. Okay, so what does all this mean for us financially?

My third and final topic for this morning. At our last Investor Day, we introduced a simple value creation framework that consisted of simplifying our portfolio, reducing our seed royalty expenses, focusing on differentiated technology, and optimizing our costs, while at the same time, we increased our investment in research and development. And I think for a relatively new company, this proved to be a pretty effective strategy. Looking back, we delivered on much of that and exceeded our own expectations into the areas we could control. Well, you may have seen this morning that we announced a new share buyback program of three billion.

Our aim is to allocate capital to drive long-term shareholder value, and we believe that this program is an important step towards that goal. Today, we're also introducing a new framework to create value through 2027, and let me start with the pieces of the framework, and this one, I think, is even simpler than our first. Net revenue growth, a billion dollars of incremental net revenue really driven by seed out-licensing, CP new products, and biological growth. The rest of our portfolio will contribute, but those

three are the main drivers. Phase two of our Controlling the Controllables program, a billion dollars of gross productivity, cost, and deflation benefits between seed and CP, while managing our SG&A.

Continued commercial excellence or execution. We are expecting an average of about a hundred basis points of EBITDA margin growth per year between 2025 and 2027. This includes our price for value strategy, improved product mix from our new technologies, and leveraging our advantaged channels to market, and we're going to do this all while maintaining approximately an 8% of sales for our research and development. Now, a few comments on the market assumptions behind this framework. We have made the simple assumption that the ag market fundamentals we are experiencing today simply continue through 2027, and we'll update you as things change over time.

So think about strong demand for crops, tight farmer margins, good on farm demand for seed and CP, and consisted planet area. The big question is, "What did we assume for CP?" The bottom of our range assumes a flattish CP industry for the next three years. The upper end of our range assumes low single-digit growth. David will unpack the financials in more detail in his section, but if you play this framework forward to 2027, we're expecting about a billion dollars of EBITDA growth over that three-year time period. It's a 9% kegger with EBITDA margin- Now, what I find perhaps the most interesting is that when we became a public company in 2019, our EBITDA margins were about 14%. So now, with this framework, we're going to add a full 10 percentage point improvement of margins along this journey, while we have increased our investment in our future, which is research and development. I think it's a great framework. So let me leave you with some thoughts before I turn it over to Brook. At Corteva, we've built a strong track record in a short amount of time in some pretty mixed market conditions.

We did what we said we would do, and we continue to execute on our controllables, often exceeding them, and always ensuring that we put our customers first, and we take great pride in being a proven value creator. Today, we now have a new risk-adjusted plan to- brings, and cost and productivity actions. Again, controlling our controllables. The six growth platforms we've outlined here today have the potential to change the way farmers farm over time. They also significantly increase Corteva's market opportunity.

And finally, I think the future of ag is incredibly attractive. This is an industry that is being asked to do more all the time, and I believe the industry is up for that. So with that, I'll turn it over to Brook.

Announcer:

Please welcome, Senior Vice President and Chief Strategy Officer, Brook Cunningham.

Brook Cunningham:

Good morning, everyone, and thanks again for joining us today. We are genuinely excited to be here with all of you. I've been at Corteva for nearly two years now, that have been working in the ag industry for over a decade, including at Lazard, where I was managing director and head of Global Agribusiness and Nutrition. That role is how I came to know Chuck, and ultimately Corteva. I couldn't be prouder to be part of this company and this incredible global industry for many of the reasons we'll discuss throughout the course of the day.

This morning, I'm going to talk about Corteva's perspective on the future of agriculture, where I'll focus on three things. First, the five key macro factors we see driving sustained growth of the sector, second from the farmer's perspective, why a wide range of technologies and solutions, including those where Corteva, as a global leader, will be required to meet the increasing demand for crops, and then third, how all of this comes together to inform our long-term outlook for the seed and crop protection businesses. So with that, let's jump in. This won't be news to any of you, but it bears repeating, agriculture is a critical industry and a growing one because, and let me state the obvious here, food is

fundamental to life, and food and energy are fundamental to economic development. Agriculture is the only source of one and an important contributor to the other, and as a result, the demand for key crops continues to intensify.

Globally, our industry comprises the work of 600 million farmers and two and a half billion livelihoods, all of whom contribute a massive \$4 trillion to global GDP. It's the only industry that impacts every single person on earth every single day. And as the world's population grows, and with it, our demand for food and energy, ag will become even more critical and even more in demand than it is today. Now, as Chuck mentioned, our industry has its ups and downs, as do most others, and we're currently emerging from one of our most volatile periods in recent history, but there are certain fundamental truths in agriculture regardless of where we are in any given cycle that are important to always keep front of mind. One is that farmland will always be planted, and growers will prioritize investing in high-quality seed because they want to maximize their yields, two is that farmers have to then defend those crops against pests, weeds, and disease, so crop protection will always be needed, and then three, continued advancements in technology are critical- Stringent regulations being enacted by governments around the world.

These truths underscore the important role that Corteva plays. High-quality seed and CP products are not optional. They are essential to the success of a farm. And when we combine that with the growing global demand for crops, this means that our industry and our company are well-positioned for sustained long-term growth. Now, let me take you a level deeper into how we view the key drivers of that growth.

You heard Chuck talk about the three global challenges. What I've done, for purposes of this conversation, is to separate the strands of those challenges so we can spend a little more time discussing their component parts. So think about this like a double-click on what Chuck just said. We see five macro factors driving industry growth, two significant demand tailwinds and three core supply pressures. We see these demand and supply forces as intertwined challenges for the industry, but which also create a meaningful opportunity for Corteva. Let's take these one by one. The first is population growth. As Chuck noted, the world is on track to add another 2 billion people in the next 25 or so years. To put that in context, that's adding another China or India. To understand what that means for our industry, let's take a quick look back. Over the past decade globally, we've seen a 10% growth in population coupled with 27% growth in income levels. Over that same period, these two factors contributed to an 11% increase in meat consumption and an 18% growth in crop consumption because about 40% of grain is used to feed livestock.

As we look ahead to the next decade, we see global income projected to grow again by 30% with meat consumption expected to grow an additional 7% or so. This implies that demand for key feed crops like corn and soybeans will need to increase by more than 20% over the next 10 years, while key food crops like wheat and rice will need to grow in the low double digits. I think the implications for Corteva's business are clear, steadily increasing demand for seed and plant health solutions.

Moving now to our second demand tailwind, the rise of biofuels. Population growth has another key impact, and that's on energy demand. Over the past decade, we've seen 9% growth in crude oil consumption with demand for biofuels also at record levels. As we look ahead, our appetite for fuel and energy is expected to grow and our electric grids to come under intensified pressure driven by Gen AI. As you heard Chuck mention, ag already plays an important role in biofuels with around 1/3 of corn ether of US corn and about half of Brazilian sugarcane used for ethanol production today. But we see another potential structural step change on the horizon driven by consumer and government mandates to increase use of even lower carbon biofuels.

The airline industry is expected to be a major driver of this evolution because electrification of long-haul flights just isn't a viable option. Fuel consumption is expected to double by 2050 as airline travel grows

and numerous governments including Brazil, the EU, Korea, Japan and the US are setting mandates to ensure a significant portion of that increased consumption comes from sustainable aviation fuel or SAF. In Brazil, already a huge biofuels user, new legislation now requires airlines to reduce greenhouse gas emissions by 1% per year to reach a 10% reduction by 2037 by utilizing SAF. The US set a goal of meeting a hundred percent of US aviation fuel demand by 2050 With SAF. In Europe, starting this January fuel at EU airports must contain at least 2% SAF increasing gradually to a 70% blend requirement by 2050.

On top of that, we see companies making voluntary decarbonization commitments related to SAF. American and Delta Air Lines, for example, have both set goals to replace 10% of their jet fuel with SAF by 2030, while United is pledged to be 100% green by 2050. When you bring all of that together, some estimate now that global SAF production will reach 32 billion gallons by 2050. The business opportunity that would present for farmers is tremendous eclipsing the scale of US corn ethanol. Just to give you some simple math, if all 32 billion gallons of SAF was produced using oilseed crops like canola or mustard, it would require an additional 275 million metric tons of crop production each year. That equates to more than 10 times the acres supporting US ethanol today. The challenge, of course, is how to increase biofuel production without displacing farmers' primary crops, without impacting food supply and also not materially increasing the total amount of land and agriculture production. The only solution to that equation is technology. At Corteva, we're deploying our seed IP into new double-cropping systems for lower-carbon biofuel feedstocks, where over a hundred million acres around the world have been identified as potentially well-suited to these types of double-cropping systems. And we're establishing industry-leading value chain partnerships with companies like BP, Chevron and Bunge that will allow farmers to fully participate in and deliver on the biofuels opportunity. Sam's going to talk more about those in a few minutes. What we love and what's getting our farmers excited about these double-cropping systems is that they can be used in fields that would otherwise lay fallow or deployed in regions where other key crops just don't perform as well due to heat or water stress. So, it can just make good economic sense for a farmer as a way to increase their revenue and their profits, and this all adds up to a substantial incremental growth opportunity for the industry and for Corteva. So those are what we see as our two demand tailwinds: population growth and biofuels demand. Let's move now to our three supply pressures.

The first of these is the finite availability of arable farmland. Today in most parts of the world, we're consistently asking farmers to produce more using more or less the same amount of land. In fact, the only region in the world where we see significant new acreage coming into production each year is Brazil, which is adding around 1 million hectares to soy production a year and over half a million hectares for safrinha corn. This is largely thanks to the government's desire to turn about 40 million hectares of degraded pasture land hundreds of thousands of kilometers away from the Amazon rainforest back into productive areas. But globally, that's really it. You couple this with the rise of urbanization where 70% of global population is expected to live in urban areas by 2050. The expansion of cities and suburbs can result in the loss of valuable farmland and the deterioration of the surrounding ag environment. So in short, in a little more than two decades, the world's farmers will be asked to feed and fuel about 10 billion people using more or less the same amount of land in production today. That's no small feat.

Let's turn to supply pressure number two, which is climate change. As we look ahead, not only will farm productivity need to keep pace with population growth, it will also need to outpace climate change. 2023 was the hottest year on record following nine years of record-breaking heat around the world. This year in places from Latin America to Europe, extreme weather has damaged crops and harvests, but of course climate change has impacts beyond weather. Warmer weather and warmer winters also result in diseases that spread faster into new regions and insects, nematodes and other pests that multiply faster, spread faster, and adapt faster. For example, over the past few years, farmers in southern Brazil

and Argentina have been battling a new insect pest, the corn leafhopper that has substantially impacted corn production.

In California, a recent study showed that three major insect pest populations that attack orchards are projected to increase mainly due to rising temperatures. Those are just a couple of examples of another fundamental fact. At a time when demand is growing and limited arable land is available, from Iowa to Brazil and India to California, food is getting harder to grow. Again, the only solution to those supply and demand imbalances is technology. Farmers need constant innovation because they need new tools, sustainable, effective, and safe to combat rising climate challenges and make the best decisions for each and every acre of their operations. Which brings me to supply pressure number three, an increasingly stringent policy and regulatory environment. Understandably, governments around the world are responding to consumer's desire for a more sustainable food supply. We support that and would say in fact that our portfolio was well-prepared to meet or exceed those new standards. However, we're also seeing a slower pace of regulatory approvals of newer, exponentially more sustainable technologies due to geopolitical complexity. Europe, for example, hasn't approved a new active ingredient since 2019. These delays negatively impact farm productivity and yields because it forces farmers to rely upon older, less effective technology. In short, it's hard and it's getting harder to get new innovation into the hands of growers, but these challenges actually play to Corteva's strengths and [inaudible 00:44:38] plays in the global food system. We are the best in the world at developing more effective technologies that also meet new regulations from sustainably advantaged chemistries to biologicals to gene editing. This type of innovation requires deep science and sustained investment involving decades of research and testing and hundreds of millions of dollars of investment. For example, a single crop protection product takes more than 12 years to reach market while a biotech trade takes around 16 years, and Corteva is the only US company with all the capabilities required to get cutting edge seed, crop protection, and biologicals technology to farm gates around the world.

It requires not only a world-class R&D platform, agronomy expertise and market-leading sales teams and channels, but also a world-class regulatory program. With that, let's turn now to the third part of our discussion and take a look at what all of this means from a farmer's perspective. Let me start by saying that over the course of my career, I've had the privilege to meet an awful lot of farmers all over the world. In the past year alone, I've spent time across Brazil, in Europe and across North America talking to our farmers, our customers, and our pioneer agents who have been serving growers for nearly a hundred years. Their job is hard and there are no days off, but I'll tell you one thing, farmers are always ready to step up to the next set of challenges, but they can't do it alone. Farmers need a broad range of solutions for every acre of their operations to meet these growing and intertwined supply and demand challenges.

As I mentioned earlier, they need high quality seed. That means elite germplasm, biotech traits, and in the next decade, gene editing to drive yield gains and fight disease. Seed is the only input that consistently brings new incremental value to farmers year after year with yield gains. New crop protection technology is also vital to increasing productivity and managing pest resistance while also meeting more stringent sustainability mandates. Let's take nematocides as an example. Plant parasitic nematodes, which are microscopic worms cause around \$80 billion of damage a year globally. Last year we launched Reklemel in the US, which is a new nematocide that protects both crops and soil health. It's also one of the first new active ingredients to be registered using Endangered Species Act assessments. Imagine the impact a technology like that can have not only on sustainability and soil health, but on food production and farm profitability.

CP also includes biologicals, and as Chuck mentioned earlier, Corteva is now one of the largest biological and natural product companies in the world today. Biologicals give farmers another critical tool to use as part of integrated pest management and soil health systems. They can extend the efficacy of synthetic

chemicals when used in rotations, improve soil health, enhance resistance management, and enable plants to better utilize all the resources around them, all things that make the plant stronger and more resilient. So we're excited by the future of this technology and what it can mean for growers. Today globally, around 35% of farmers use biologicals in their operations and more plan to do so over the next two years. Brazil is leading the way in adoption driven by that region's particular challenges, managing pests with traditional crop protection alone. In all, the biologicals market is expected to be 26 billion by 2035 as adoption rates continue to rise over the next few years.

Lastly, but not least, I'll mention the industry's increasing use of data or as we call it at Corteva, decision science to get better, more tailored insights to farmers and enhance the value we bring to the table with our seed and crop protection products. That can include better recommendations like more targeted seed placement or improved timing of fungicide applications. If there's one thing I want you to take away from this particular section, it's that this isn't a menu of options. It is an all-of-the-above strategy that requires the full breadth of the technology shown on this slide. These are the tools in the farmer's tool chest that makes their jobs a little less hard. I think it's also important to recognize that our industry has a great track record of stepping up to challenges. In the US we've seen a 100% increase in corn yields per acre over the last 50 years.

Global average yields of corn, soybeans, wheat, rice, and cotton have increased 35% over the last 25 years thanks almost entirely to advanced technology, including Corteva's. To underscore a point I made earlier, farmers can do everything we're asking them to do in the timeframe we're asking them to do it, but only if they have access to innovation. Biotech and advanced crop protection solutions today combined with digital agronomic expertise, and then tomorrow we'll add gene editing to the toolbox. But again, as I said at the start, this industry is not immune to volatility. We've been through a nearly unprecedented period in agriculture driven by the lingering impact of a global pandemic, the Russia-Ukraine war, and other geopolitical conflicts coupled with extreme weather events. This resulted in a period of supply constraints, spiking commodity prices and abnormal customer purchasing behaviors. But that period of volatility is normalizing.

As stocks to use levels stabilized around the world, we saw crop prices decline from their COVID peaks with a corresponding stabilization in farm income levels. Our base assumption today is that absent another unforeseen events, both crop prices and farm income levels should remain in a normalized range based on historical averages for the next several years. And that means farmers will be discerning in their crop input purchasing decisions with the laser focus on maximizing the returns of every acre of their production. With that in mind, let's circle back to those fundamental truths we talked about a few minutes ago. Farmland will continue to be planted. Farmers will defend those crops against pests and disease and advanced technology will be critical as food and fuel becomes harder to grow. What history has shown us is that when farmers are faced with periods of tighter economics, not all decisions on the acre are treated equally, and that in these periods, growers prioritize investment in high quality seed and then protecting that crop with CP technology to maximize their yields.

What Corteva brings to the table aren't nice to haves. They're absolute necessities which make farmers' investments in seed and CP more consistent and more resilient through the ag cycle than other key input categories like fertilizer and machinery. Seed is a farmer's most important decision and they only get one chance of season to get it right. Crop protection then follows to ensure they're doing what they can to protect their crop and their business. A look back over the last few years illustrate this point. In our last cyclical ag market downturn from 2013 to 2016, farmer income declined by about 50%. Machinery and fertilizer spend declined by around 35% and 15% respectively. Seed and CP spend, on the other hand, were relatively flat to slightly up bringing all this together. We believe that within the agriculture sector as a whole, the markets where Corteva plays are well positioned for sustainable long-term growth.

In crop protection, we expect traditional chemistry to return to low single-digit growth rates as rising pest pressure and impacts of climate change drive the continued need for new technology. Increasing use of biologicals and seed applied technologies as part of integrated offerings are expected to drive growth in these sectors at rates exceeding traditional chemistry, approximately six to 8% for biologicals and three to 5% for seed applied technology. In seed we expect continued growth of two to 4% per year led by increased adoption of new technologies to drive the yield gains needed for farmers to both meet their financial targets and the increasing demand for food and fuel. Let me end my portion of the day by saying that we're proud that we've delivered meaningful results to our customers and our shareholders in our first five years, but now we're really focused on the future where we expect to continue to deliver value to our stakeholders in a critical and growing global industry. And so as impressive as our track record may be, we genuinely believe that we're just getting started. Now, after a short video, Sam will cover our path to growth through innovation.

Voice-over:

The world's greatest innovations didn't just make something better, they unlocked something more. They created opportunity. They established new markets and transformed how entire systems work. When Pioneer introduced hybrid corn, we started a revolution that led to a century-long increase in corn yield that continues to this day. Hybrid corn drove some of the greatest improvement in farm productivity the world has ever seen, and now we're doing it again with wheat, hybrid wheat. Others have tried but our breakthrough technology delivers and it promises to transform yields for another global staple, but this time even faster. But our innovation isn't just feeding the world, it's also fueling it. Global demand for biofuel is exploding, and our Winter Canola field-to-fuel program is setting new standards for biofuel production.

We are harnessing the power of Pioneer Winter canola and tapping global leaders to scale the production of usable biofuel from our farmers' harvest. Our double cropping system creates new revenue for farmers. Our partnerships provide a guaranteed market that drives farmer profitability and program participation. And our breeding and agronomic experience in improving crop ensures ongoing yield growth for farmers and more feedstock for the biofuel market. Most importantly, we are just getting started. Delivering innovation that keeps pace with the world's toughest challenges, that's the future at Corteva.

Announcer:

Please welcome Executive Vice President, Chief Technology and Digital Officer Sam Eathington.

Sam Eathington:

Well, good morning everybody, and welcome. It's great to be here and have an opportunity to talk to you a little bit today. Chuck set the foundation of our view of agriculture and really our growth potential. And so what I want to share with you a little bit is the details in our R&D program of how we're creating that new value. So our research program continues to deliver innovation and we operate highly efficiently to deliver a strong return on our investment. I'll highlight a few examples from our pipeline of our seed and crop protection programs, and then I'll show more about the new growth areas that Chuck referenced. As we're applying new capabilities like gene editing and moving into areas like biologics, we're accelerating the pace of our innovation and therefore the pace of value creation. When it comes to driving innovation, we believe we hold the strongest leadership position within the agriculture space. We are a proven value creator. Five years ago when we started this journey, let's take a look back at what we've created. In our seed R&D program, we've increased the yield potential of our crops by over

5%. We've launched more than 1500 new products and 12 different biotech trait concepts. This creates more yield for our farmers, resulting in more value to Corteva and fueling our growth in our seed business. Our crop protection program has launched three new molecules and more than 760 new crop protection products. These products are helping farmers protect crops from increasing insect, disease, weed, nematode challenges, problems that will continue to increase as climate shifts accelerate. And we are now one of the largest biological companies in the world creating products that complement our synthetic chemistry.

We're also bringing in external innovation, so we created our Corteva Catalyst program, which has already closed six deals, and we have numerous other deals in the works. Finally, we ensure that our innovations are protected to the fullest level possible and that we meet our sustainability goals across our pipeline of solutions. So near-term growth is driven by our seed and crop protection products that we've already created. We already have regulatory approval for what we need. For our seed business, every year, the 300 or so new products we launch have about 1% higher yield potential than the products we launched the previous year. As farmers shift their product mix to newer products, they get more yield potential. We continue to deliver new biotechnology trait products that reduce our trait royalties and open up new business opportunities like out-licensing germplasm and traits. For our crop protection business, new and differentiated active molecules and new formulations solve farmer pest problems and protect the yield we have created. Corteva has a unique position here, right? We have the ability in our innovation to create both more yield and protect that yield for our customers. Our R&D structure and integration of our R&D program makes us very efficient and unique in the industry to deliver these solutions. Put simply, our seed and crop protection businesses have the products needed to drive growth in the near term while we invest in the future.

So we have the longest running commercial plant breeding program in the world. It is unmatched in plant breeding scale, germplasm diversity and product performance. Every year, we launch new products with higher yield potential. Our North American corn and soybean portfolio is the strongest as we've had in the last 25 years, and we've complemented our leading germplasm performance with the launch of new trait products. In corn, that's PowerCore Enlist, and Vorseed, both of which solve insect and weed control problems for farmers. Our Z-Series E3 soybeans are now the leading soybean products in North America, and we're growing our soybean business in Brazil with Conkesta E3, which provides farmers with more options to control insects and weeds.

We have a strong history of delivering unique new active molecules. We've recently launched three differentiated new actives that will deliver new growth in our CP business. For all three of these actives, we're expanding regulatory approvals and the market opportunity. Adavelt, which is a broad-spectrum fungicide, performs well in dozens of crops against more than 20 diseases. ReKlemel you heard about is protecting plant roots against nematodes and preserving soil health. And finally, we're controlling problem weeds with our Rinskor active. To fully optimize these new actives and solve problems farmers have, we're now expanding our formulation capability and bringing additional new solutions to the market.

So now let's look into the future a little bit more, and we see multiple transformations that drive the future value of Corteva. So first, our transition to more proprietary biotech traits will continue to reduce our royalties, and combined with our germplasm performance creates new out licensing opportunities. Our crop protection pipeline and new actives will continue to deliver differentiated solutions to global farmers. Next, we're creating groundbreaking new agriculture cropping systems that will increase agricultural productivity in both food and fuel production. We're particularly excited about creating new markets and biofuels and expanding with hybrid wheat. Gene editing will be the biggest transformation in plant genetics since biotechnology, and we are set to deliver gene edited products at scale, that few can match what we're doing.

Biologics and natural products are rapidly growing markets, and we have a leadership position in both. This fits with the global demand for products that complement our synthetic chemistry and enhance the sustainability of crop protection solutions. And finally, we're integrating decision science and AI throughout our program to accelerate both our seed and crop protection R&D and our sales enablement to maximize the performance of our products in the field. So let's look at these in a little bit more detail now. We'll start with proprietary technology where we're continuing to advance both our seed and crop protection products to solve farmers and give us more options. In corn, we're continuing that proprietary trait transition with new above ground and below ground biotech traits. These traits target insect problems with new and unique modes of action, giving us new opportunities for product concepts and again, to out license.

We're also launching a new agronomic system with our reduced stature corn in elite germplasm. And finally, we're on track to deliver our gene edited industry changing disease resistance that will make disease control easy for farmers. And with all of these products, we're rapidly advancing them towards commercialization to get them into farmer's hands as quickly as possible. Now in soybeans, we've changed the game in North America with E3 soybeans. We're onto our fourth generation herbicide tolerance that now has four modes of action for weed control that will help farmers control difficult weeds just as Enlist does. Today. For Brazil, we have our second generation insect control with three modes of action that will build on the market expectation changes we see with Conkesta, E3. And finally, just as we're doing in corn, we're working on an industry changing disease resistance that will simplify disease control in soybeans.

On the crop protection side, our pipeline of CP products cover the major challenges that farmers face, disease control, insect control, and weed control. You heard about Haviza. It's our new active ingredient. It's working its way through the last steps of regulatory approval to be launched in South America to help farmers control Asian soybean rust and many other fungal diseases. We're also excited to officially announce the name of our next generation SAF Feeding Insecticide Kinrayza. It's a low use rate insecticide that will help protect crops from piercing and sucking pests. We're also quite excited about our next generation insecticide for chewing pests, which will complement the generation of insect traits that we're launching later this decade.

Finally, as we look to the next decade, we're delivering a new mode of action in herbicides. This new mode of action can be combined with our herbicide tolerant traits in our germplasm. So in summary, the last five years, we charted a path to build a mature pipeline of proprietary traits and differentiated crop protection solutions. We're on the path we promised, and the pipeline is poised to deliver the new business opportunities and value that we expect. So now let's talk about the agriculture systems. We have three innovations that are really going to change and expand agriculture production. These products will give farmers more choices, create additional value, and expand our ability to produce food and fuel while making agriculture more resilient and sustainable.

Today we're excited to introduce our hybrid wheat product. We believe this is the beginning of a major transformation of global wheat production. Similar to what happened in hybrid corn, corn yielded roughly 25 bushels per acre prior to it being hybridized. Today, the average yield is over 180, best guess, probably 183 This year. It's clear that hybrid wheat yields more than our current varietal wheat products in both optimal and stressful growing conditions. Our data across multiple years consistently shows a 10 to 20% improvement in yield potential. This is a major step change in the performance for global wheat production, and it marks a new inflection point for applying additional technology to further increase the annual rate of performance improvement similar to what we accomplished in corn.

Now, you've heard a lot about hybrid wheat. A lot of companies have talked about it, talked about it for a long time, but ours is different. Our sterility and production system is a non-GMO system. It does not

use the common CMS system that's out there, and it does not use any of the chemical sterility systems that have been tried. The male sterility in our system is stable across germplasm and production environments, making our breeding and production systems very efficient and scalable, and we are the only company with this complete system. We plan to have our initial launch in hard red winter wheat in 2027, and we'll be extending into other wheat classes by late decade. Now let's turn to the next generation of biofuels. You heard from Chuck and Brooke of the value opportunity for that, and we have a leadership position in the core crops like winter canola, mustard, and sunflower that can deliver the new feed stocks needed for the next generation of biofuels.

Our advantage in these crops is very clear. We have elite germplasm. We have the agronomic know-how on how to grow and manage these crops. We have products already on the market, and all this is backed by our industry-leading plant breeding and agronomy programs. We started actually working on our winter canola for biofuels as a new winter cropping system back in 2018. But now today, farmers can plant our winter canola hybrids in the fall, harvest them in the spring, and time them to plant their summer crop. Last year, this partnership with Bunge and Chevron, we had a very successful 5,000 acre pilot, which expanded to 35,000 acres this year. The great thing about this is farmers make more money, and so it is a sustainable system going forward. In addition, we see great opportunities to supply the European staff market using similar novel cropping systems with these crops across multiple different geographies. We have a first mover position in this space with the products and agronomic systems to deliver these reliable feedstocks. You've heard me talk about our reduced stature corn before. I'm pleased to say we continue to make great progress, as we see the opportunity to unlock value from farmers in multiple ways.

First, in both our native and our gene-edited version, we've confirmed that we can consistently reduce the height about 30% across our germplasm. This gives farmers a lot of different options, applying fertilizer, pesticides, and biologics to their growing crop to maximize the yield from their field. The year height on our products works with today's combines and our plants are very resistant to lodging problems from weather events.

Second, we've also confirmed that this new plant type enables creation of products that produce more yield when grown in higher plant density. But differently, we can grow more plants on the same land and get more yield.

Our reduced stature corn lets our plant breeders select the hybrids that perform at even higher plant density, resulting in a faster yield improvement. Combining this with our decision science tools that help farmers optimize planting rates, we see this new corn production system becoming the future standard and will change how agriculture works.

Hybridizing global wheat, creating new biofuels and creating a green revolution in corn all create more value for global farmers and helps Corteva stand apart from our peers.

So let's switch over to gene editing. We see this as a major change in the future of plant breeding. We now have the ability to make precise modifications to plant genomes that increase yield, strengthen pest resistance, improve tolerance to drought and heat, or deliver improved quality traits. Our Genlytix Ecosystem is industry-leading and designed to accelerate our seed and biological products.

We have two very fundamental beliefs about gene editing: first, that regulatory agencies around the world are moving towards more favorable global regulatory systems for gene editing compared to what we have today with biotechnology; and second, gene editing has the potential to be more impactful than biotechnology. Our in-house capabilities and capacity are really industry-leading. We have four unique gene editing platforms that we've used across 10 different crops, and we've targeted over 1400 unique genes that we've modified, and even more importantly as we're doing this in our elite germplasm, so when we make improvements, we do so in the world's best germplasm pool.

We've successfully completed over 70 multiplex edits in a single plant. The process internally we like to call "mega plexing." We've tested thousands of plants and modified genes in the fields. These modifications cover things from changing the genes to actually changing gene expression of the genes.

But we didn't stay internally focused: we partnered with leading universities and startups to expand our capabilities. We're working with food companies and global philanthropic entities to expand the use of gene editing. We're helping lead the conversation on transparency and regulatory discussions. At the end of the day, we're fully committed to gene editing and the improvements it can make to both our seed and our biological products.

One of the most exciting anchors of our gene editing ecosystem is our proprietary multi-disease resistant corn, something we've called "Disease Super Locus." This is a breakthrough concept for disease resistance. We've used gene editing technology to improve that level of resistance for four major disease problems that today cause about \$1 billion of yield loss in North America corn.

We changed the location of these resistance genes to make it easier for our plant breeders to work with. This means more of our products will have this improved disease resistance. As you can see by the picture, field performance is outstanding, and we have USDA regulatory authorization.

Just as biotechnology improved insect control and the value of seed, we believe gene editing will do the same thing for disease control. We're also expanding the number of diseases we're targeting, and we have a pipeline of genes to improve the durability of this resistance. As the global regulatory environment for gene editing advances, we're poised to be a first mover.

But in addition to disease, we know that increasing the rate of yield improvement can have dramatic impact on our products and the value we create.

And so a little history: in the history of plant breeding, the way you make genetic improvements is through genetic variation, and through gene editing, we've now created new mechanisms to create new genetic variation in our elite germplasm, therefore accelerating the yield improvements we're going to get.

So let me just show you two examples. First, because we can mega plex gene editing, we're creating more genetic diversity in an elite breeding population. This allows our plant breeders to select plants with higher yield potential. And again, in some cases, we're changing gene expression levels, and in other scenarios, we're actually change the genes. And all this, we're using artificial intelligence models to help us identify the genes to change and how to change the genes.

Second, we're creating new combinations among genes, which is an important way of creating new, improved products, so we're now able to increase the normal genetic recombination rate that's in plants three to four times. As you can see, this creates all sorts of new gene combinations that our plant breeders, again, get to test and evaluate, all introducing more variability, helps them create products faster.

These simple examples, plus other concepts that we deploy, allow us to double the rate of yield improvement, creating more value for farmers. When it comes to gene editing, we have technical leadership, we have scale, and we have an ecosystem to deliver more value.

Now, let's pivot and talk about how we protect the plant yield we create and make plants more efficient, with our growing lineup of increasingly sustainable biological and natural products that complement our synthetic chemistry.

Let's start with the clear success: Utrisha N. It's delivering significant yield increases in Brazil in both corn and soybeans. This is technology we acquired from Symborg that fits with the Stoller's market approach and was enhanced by some of the technology we have at Corteva. We've conducted over 300 trials of

this in the past four years, and we see an average yield increase of over four bushels in corn and over 2.6 in soybeans.

And while Brazil continues to be a growth market for Utrisha N, we've now registered that product in more than 50 countries in a wide variety of different crops. This shows the potential of biologics to deliver significant farmer value when the right technology is delivered to customers in the right way.

We also know that biological control for disease and insect problems is a really important way to complement our traditional chemistry. Here's one example of a biocontrol product that we have that improves insect control in tomatoes when combined with our Qalcova product. Our biocontrol doubles the control rate of the insects compared to just using Qalcova by itself. This is an important tool to help growers manage pest problems, improve product durability, all while managing their chemical residue levels.

To deliver more products like this, we've expanded our natural product and microbial discovery efforts, using new technology and AI models to help us accelerate the identification of new lead products. This is particularly true now, with our Genlytix platform provides the capability to engineer biologics to improve things like production, their efficiency, their efficacy, and their stability characteristics.

Because many of the tools and capabilities that have helped us drive our leadership in seed genetics have parallels with the microbe development improvement, we see the opportunity to continue create leading products. We're now one of the leaders in the biologics market and we're the only company driving biological and natural product discovery at scales enhanced by gene editing and AI tools.

Let me end with a few comments about how we're using AI in decision science throughout our program: we're accelerating our R&D discovery programs, product development and sales enablement to help farmers get the maximum value from the products. AI is helping us move faster and innovate with more precision in both our seed and crop protection R&D programs. We screen and test more material more efficiently and identify targets faster today than we ever have.

One way we enhance product development system is by using drones to collect field data, use that data through AI models to allow accelerated selection of our field products. In addition, we're using gen AI tools to enhance our regulatory submissions globally, by efficiently producing materials necessary for the thousands of submissions we submit every year. Finally, we reinvented our digital tools to help our sales force maximize the performance of our products in the farmers' fields. Our granular insight tools are now sales-focused. We're partnered directly with equipment manufacturers to connect farm equipment cab to our pioneer products and recommendations. This is a unique implementation, since the pioneer agronomic recommendations are integrated within the equipment. This makes it very simple and easy for farmers to execute. In our pilot this year, we saw a 2X improvement in the execution rate of our agronomic recommendations. We've streamlined data consolidation and summary for our sales reps and implemented algorithms that deliver maximum performance from our products.

And finally, we created and integrated CARL, is our Corteva agronomy gen AI, tool that's been trained on our proprietary pioneer agronomy knowledge. This knowledge gives our sales reps and our agronomists real-time access to the latest agronomy information for any question in any customer situation.

Our end-to-end approach for AI and data science will allow us to deliver faster discovery timelines and better farmer experience, and we built these tools to deliver the industry's most precise field insights, to help farmers drive yield and productivity through our industry leading route to market.

Let me close, a couple things. Corteva is a clear leader in our ability to fuel the future of agriculture. We have a track record of proven value creation, and we have an exciting future ahead. With our elite germplasm and lineup of differentiated crop protection tech molecules, we're building from a leading foundation, which we are expanding with proprietary technology. We're accelerating innovation and

value creation through new agriculture cropping systems. We have our unmatched Genlytix gene editing ecosystem, and a leadership position in biologics and natural products.

We have a clear path forward in agriculture and we have an organization of scientists dedicated to delivering it, so nobody is better positioned to deliver than Corteva. Thank you, and now I'll turn it over to Kim for Q&A.

Kim Booth:

All right. Thank you to Chuck, Brook and Sam for getting us started. We're going to now spend about 15 minutes going through some Q&A on our longterm strategy and innovation. For those in the room, we have two mic runners, so just raise your hands, please introduce yourself, and we can get into some questions. If you're participating online, please feel free to submit your questions there and we'll get to as many as we can. First question?

Vincent Andrews:

Oh, hi. Vincent Andrews from Morgan Stanley. I'm wondering if we can talk a little bit more about reduced stature corn. In 2027, it sounds like, is this a germplasm launch or is it a trait launch? What's the underlying tech that's there? Then, can you talk about the value creation that you're envisioning? Is this a step change in value creation for both you and the farmer? Or is this just a further enabler of the existing seed price mix algorithm that we've become accustomed to and that you've been guiding to, as well? So maybe you could talk a little bit about what you think the yield gain is. Is there a cost savings benefit? What are the components of that value creation? And how much do you think can accrue to you incrementally?

Chuck Magro:

Great. Go ahead, Sam.

Sam Eathington:

Yep. Great, thanks. So the technology we're launching in '27, we've got a native trait that we've been breeding and working with. That would be what we launched first in 2027. We've created the gene edited version of it also, which is actually a little bit better. We're walking that through the regulatory systems right now today. And we're doing that in our most elite germplasm, so it's not like we go back to old hybrids or old genetics. It's the most elite germplasm. We will have it in our newest trait packages, like PowerCore, for example, [inaudible 01:24:39] down the road to give farmers the trait options they want.

The value creation is multiple ways. Our first wave will be about reducing height, which lets you have that ability to apply different agronomic systems and programs to the field, so if a farmer wants to apply fertilizer, fungicides differently with machines, they have that optionality to do it in that crop. They can turn up the plant density some if they want to and get more yield out of it where we think it would be useful for them.

But the real big innovation comes as our plant breeders are selecting those hybrids for more plant density tolerance. If you think about the US corn, we get about 1% aggregate yield increase across the US. Most of that is driven by we put more plants out per acre. And what we see reduced stature corn doing is letting our breeders pull that forward faster, so instead of maybe getting a 1% increase in plant density per year, what if it was 1.5% or 2% increase in plant density per year? That will drive up the yield rate, creating more value that we get to capture.

Kim Booth:

Great. Next question?

Dave Begleiter:

Thank you. Dave Begleiter, Deutsche Bank. Chuck, in crop protection, has the last 18 months changed your view on either the business or how you want to approach the market going forward?

Chuck Magro:

Yeah, we've asked ourselves that question often, David, so thanks for the question. I'd say generally, no. I think the decisions that we made back in 2022 to emphasize the differentiated, the more technology parts of the portfolio, thank goodness we exited the glyphosate business, and then tilting the portfolio towards biologicals, as well. Even in this sort of difficult period we've had with CP, those have been the bright lights. They're the ones that are having more demand and the growth rates are still pretty strong. We like where we've been, but the conditions haven't been easy.

I think the other thing that we're really focused on right now, and everybody's working on costs, but we were a little sooner than most people to get our asset footprint optimized, the next generation of that now with the \$1 billion of gross and 700 of net, it's tilted a little bit towards seed, but if you look at our CP opportunity, there's still 300 million there, so it's pretty sizable, and I think that there's a lot of optionality there that's going to allow us to create value.

The last point I'd say is, if you look at the industry, we still think that the CP industry returns to its historical growth, and you might ask why that is. We're seeing more disease and pests, not less. We're still seeing some of the old pests. If you look at Argentina, the corn stunt issue, we never saw that before. That was always in Brazil. Now that's migrated to Argentina. So we're seeing an increase in disease and pest pressure, we're seeing old diseases and pests move around the world, and we're still expecting higher planted area, especially coming out of Brazil, of one to 2 million hectares per year. So net net net, we think that the CP industry, after the stabilization period, it returns to growth; and for us, the portfolio is going to shift towards more differentiated, more unique technology and less of the commodity focused.

Kim Booth:

Great. Next question? Chris.

Chris Parkinson:

Chris Parkinson, Wolfe Research. Chuck, over the last 10 years, every single one of us has heard, "We have the next best thing in gene editing, and we're going to do this and do that." I'm sure you've seen it in your prior roles, as well. What makes Corteva's opportunity different? Is it regulatory? Is it the process? If you could just offer some insights on that scope, as well as just the commercialization in terms of just managing some expectations over the next few years, that'd be incredibly helpful. Thank you.

Chuck Magro:

Yeah. So you have to look at the past performance hopefully for some indication of the future performance. As we tried to call out today, I think we've done as good a job as any in terms of what we can control. Since I've come to the company, we've really tried to just keep things simple, so we have de-emphasized a lot, because there's a lot of opportunity out there, and the key is matching your

internal capability with what that opportunity is. And if you look at what we've done, I think we've been able to kind of focus on the controllables, we've taken cost out, and we've really leaned into the next generation of technology.

Now, if you think about those global challenges, where we think the opportunity lies in this next frontier is all around changing farming. The six that we laid out today, they are going to literally change how farmers farm and the tools that they have.

So hybrid wheat, you're right, everybody's talked about it. The proof will be in the pudding, but I was in the field, I've seen it. The sterility system is scalable, and that is something that we have not seen before as an industry. And what that's going to allow, if you step back and you think about it, it's going to allow farmers now to use wheat more as a summer crop, and they'll still select soybeans and corn, but they're going to have financially viable options with that incremental yield. That allows us then to use the winter cropping systems for biofuels. That's why we've went all in on sort of the biofuel strategy. So what we're trying to do is give farmers better options to produce crops more profitably in the summer, and then supplement their winter cropping choices with biofuels. Food in the summer, fuel in the winter. And we've built the whole science and integrated platform around that.

Will we be successful? I can't sit here and say we will be successful on everything, but if you just step back to what we've seen in gene editing, I'll just close with that comment, Chris: we have seen enough in Corteva to know that the technology is transformational, and that we will be able to drive yield at levels we haven't seen before with gene edited technology. What we need now is freedom to operate, but Sam and his team have done enough work. If you look at that Disease Super Locus, if you just look at that picture, Sam on a Saturday sent me that picture. That's with no product applied, just the edits. We do need to get that technology into the hand of our farmers.

Kim Booth:

Great. Next question.

Kevin McCarthy:

Yes. Hi, Kevin McCarthy, Vertical Research Partners. I want to follow up on two aspects of hybrid wheat. Would you comment on intellectual property protection and how investors should conceptualize that for your hybrid wheat commercialization efforts? And then would you comment on the ramp? I think you mentioned, Chuck, a billion dollar opportunity for that product line, so following the launch in hard red winter wheat in 2027, what does the next five to 10 years look like as you attack the 550 million acres around the world?

Chuck Magro:

You want to talk about the IP?

Sam Eathington:

Yeah, just real quick on IP, Kevin. We've filed for protection in many different ways, as you can imagine, whether it's the genetic system, it's the whole complementary pathway and process we use, the process we use behind it. We've got our patents extended to other technologies, like gene editing, that might apply to it. So we think we're in a good strong position in IP, and we'll use that as we continue to go out in the marketplace around the world. I would say hybrid, we're starting with winter, and we've got the other classes lined up late this decade to launch into those, and we'll see how successful they are, what we can go ahead and take that product to other parts of the world moving forward.

Chuck Magro:

And then Kevin, just on the ramp up. So obviously, we think we have a great proprietary system here from a sterility perspective, but we don't have a global lock on germplasm. We have our own germplasm. We plan to sell both the technology and our germplasm, but then in some markets around the world, this is the largest planted area crop, that there's a lot of good germplasm out there, we plan to license the technology, so that allows us to get, I think, a very strong return on our investment as quickly as we can, but it's going to take some time, of course, to ramp up. But so far, what we've seen, we like, and I think that providing sort of a dual strategy of selling our germplasm where we have a high-performing technology, but also licensing the sterility system around the world, I think that's going to really drive up value creation relatively quickly.

Kim Booth:

Great. Next question.

Joel Jackson:

Hi Joel Jackson, BMO. As you talk about your out-licensing strategy, the other guys have been there for a long time: a lot of the retailers, private labels use that germplasm. How do you get into that market? How long does it take? You have great germplasm. You have to compete on price to start and do the challenges with some of the Dicamba labeling and registration issues give you a bit of a opportunity now maybe to wedge your way in, as the other guys have some unique challenges?

Chuck Magro:

Yeah. So Joel, look, on Dicamba, when we gave our numbers back at the end of the quarter for 2025, what I'd say is that we really have been contemplating a significant increase in share from a Dicamba opportunity, if you were to say it that way. But logically, there should be some upside, depending on what happens with the EPA. But we are waiting to understand what the label looks like for 2025, so I'd say to be determined. We need more information and we need the final label to come out so we can understand the tool that we're going to have for farmers. I would say, though, we are seeing some more interest in the Enlist platform in the south, which has been a Dicamba stronghold. Your first question was...

Sam Eathington:

How we get into the retailers.

Chuck Magro:

Oh, yes.

Joel Jackson:

How do you convince know product labels, retailers, you have great germplasm, but they've been using the other guys' germplasm for years. How do you get in there? How long does it take? You have to compete on price?

Chuck Magro:

Yeah. Certainly, we don't think that we have to do anything unique or different. My experiences in the retail organizations, they've been asking for choices for years, so I think that this provides another

choice, another opportunity for both the retail channel to have great, fantastic technology, but also for farmers. And there's going to be a solution, I think, for both the retail channel and farmers.

The other thing I'd say is I would put our germplasm and our performance up against anybody in the world. Head-to-head, we like our odds, because we do have, I think, the broadest, the deepest breeding program out there, and the technology, I think, will speak for itself. So the notion that giving farmers and retailers in the channel more choice, plus the performance, head-to-head, we like our odds when you put those two together.

Kim Booth:

Great. So that went fast. We're going to transition to a 10-minute break, and during that time, feel free to try to grab one of the leaders if you didn't get your question in. Otherwise, we have another session at the end of the event where we can get to more. And we'll be hearing from Tim, Robert, and David after this break, so thanks for your participation, and we'll see you in a few minutes.

Voice-over:

Seed is one of the most important investments a farmer makes every year, and every season, and we return the favor by investing in them. Our products are industry-leading, and our people provide farmers with the technical expertise, and agronomic insights to help make their farms more productive, and more profitable. That's added value that few, if any, can match. From Western Iowa to the Cerrado in Brazil, our dedication drives trust, loyalty, and long, often generational partnerships. As the world changes, we keep growing to meet the needs of farmers, and solve some of the world's toughest challenges. This is the future at Corteva.

Announcer:

Please welcome executive vice president of the Seed Business Unit, Tim Glenn.

Tim Glenn:

Good morning, and thank you all for joining us today. Today I am looking forward to talking about our Seed business, where we've been, we're at, and where we're heading, and to highlight why we believe that no company is better positioned to deliver steady top-line growth while continuing to deliver margin expansion. Our history goes back to the origins of the hybrid seed corn industry with what became Pioneer Hybrid being the first company to commercialize hybrid seed corn in 1926. From that 100 years ago, a transformation of agriculture has followed in corn, and expanded to include soybeans, canola, and other crops that help feed, fuel, and clothe the world. The transformation is enabled by innovation that has driven continuous, and compounded gains in yield at the farm level all while using scarce resources such as land, water, and fertility more efficiently, and sustainably.

If I were to summarize what the essence of our Seed business is, in a few words, it would be that we're a growth business, not explosive growth, but growth that's supported by long-term underlying growth, and demand for core commodities as Brooke outlined earlier. And growth that's focused on specific seed crop markets, and specific countries around the world, very strategic choices have been made to focus on corn, and soy globally, and a handful of other seed crops on a regional, or country basis. It's not that we're immune to short-term market adjustments, or cycles. We have fluctuations in commodity prices, and the crop hectares planted in any one year can change, but long-term growth for high-quality, high-technology Seed is supported by long-term demand for the commodities produced. It's the innovative products that we deliver year after year around 300 new hybrids, and varieties that are core

to the success of our customers. And farmers are depending on us to help deliver continuous yield improvements that are supported with ongoing agronomic improvements in the seed that enable stability during periods of stress, or volatile weather.

Products that have the latest traits, and Seed-applied technologies to protect yield from persistent pest, and disease pressures. It's also that trusted relationships still matter in the Seed business. Seed remains the highest involvement purchase that a farmer makes every season, and the relationships, and trust are built over many years, sometimes over multiple generations, and we have focused on ensuring that we have a differentiated relationship with our customer, whether we sell through the direct model, or through distribution. And finally, we're a business that has the potential to continue to expand margins. We demonstrated that over the past five years, and we have a clear path, and continue to expand margins well into the future. Seed has delivered solid top-line growth, and significant EBITDA growth over the past four years, highlighted by EBITDA margin expansion of over 750 basis points. This was driven by a strong combination of price value capture for our industry-leading Seed portfolio, execution of our focus go-to-market approach that has resulted in market share gains, a meaningful reduction in royalties for licensed trade technologies, and the ability to offset significant headwinds, and product costs.

One objective for our Seed business is to hold the number one, or two brand position in every seed market where we choose to play. And while there's always room for growth, or improvement in our competitive position, we've largely been successful, especially with our corn business, and where we currently have a weakness like soybeans in Brazil, we have a path forward with our Cordius licensing brand, which I'll talk about shortly. While having a leading seed position is important given the investment, and scale of our Seed business, we'll always take a balanced approach between having a high-quality profitable business, and having a business that captures an important share of the market. We expect the global seed market to continue to expand over the next decade with much of the growth for demand for Seed technologies that drive yield, and productivity necessary to supply ongoing demand for the underlying commodities as well as see technology which supports sustainable use of scarce resources. We also believe we will continue to see growth in arable land in a few countries with Brazil being the most important market, averaging an additional one to two million hectares per year under cultivation, and there's also the opportunity for continued expansion of double crop practices like Safrinha corn, where it makes economic, and agronomic sense to create new, or expanded markets. Today with our current sales level, an addressable market of around \$38 billion, we'd be capturing about a quarter of the addressable market. And while we're not driven by market share, we see our share of the addressable market increasing, meaning we believe that we can deliver above market growth over time.

Next, I'll address the key elements of our Seed business strategy, and how it is a well-rounded business supporting top line growth, and margin expansion. There are three elements critical to unlocking customer value. First, proprietary technology. Second, a differentiated customer experience through our industry leading brand portfolio, and finally continuing to execute at the highest level in our industry. Now I'd like to highlight a few proof points to support the strategy. Whenever I talk about our business, I always focus a great deal of my message around the need for proprietary technology, and I want to highlight an example of how it can create an impact on our business using the triple stack segment in the US corn market as an example. When I say triple stack, I mean a Seed product with biotechnology traits that give protection from above ground insects like corn borer, protection from below ground insects like corn rootworm, and multiple modes of action of herbicide tolerance that gives access to new chemistry, and weed control options.

It represents just over a third of the US corn acres, and with this level of technology, triples are generally the highest priced, and highest value segment of the market. The triple segment started around 20 years

ago with the introduction of traits to protected seed from corn rootworm with above ground insect control, and herbicide tolerance being introduced several years earlier. From the start, Pioneer lagged in this segment, not because we didn't have germplasm that worked, but we were working with a trait package that at the time created challenges, and limited the genetics that we had available. Essentially, the traits were difficult to work with, and impacted our ability to create hybrids with a triple stack package. It isn't that we had a bad product, but rather we didn't have enough breadth, and depth in our lineup to meet customer's needs. It meant our share of the triple segment badly lagged other trait segments, and geographies where triple stacks were in necessity, our market share position, and our reputation badly lagged at the time because we didn't have an offer that met customer's needs.

So, it became clear that we needed an alternative, and Qrome was developed with specific purpose of meeting a customer's needs for a high-yielding triple all while opening the funnel that Sam talked about, allowing us to take advantage of our industry-leading genetics. From the start, we knew we had a winner. With the introduction in 2016. We took what was the weakest point of our lineup, and it has become a strength. We went from laggard to leader, and today we have the leading position in this high-value market, both in terms of product performance, and market share position. And last season we launched Vorceed Enlist, which builds off the high-yielding performance of Qrome by sharpening the below-ground insect protection, and gives additional herbicide options. Today, Qrome, and Vorceed are available exclusively in Pioneer, Brevant, and our regional Seed brands in North America market, and we're already developing the next generation of proprietary trait that will accelerate our out licensing strategy, and create an entry into the triple-stack licensing segment.

I believe an advantage we have is our ability to segment markets, and customize how we go to market on a specific country-by-country basis. To enable this, we built a portfolio of brands that we utilize to reach specific segments of customers, and a disciplined approach to how we develop, and implement our routes to market. Pioneer is our flagship brand globally, the most recognized Seed brand around the world, and unique to Corteva. Pioneer holds a leading position in over 100 countries around the world. Brevant is focused on full-service retail, and we have introduced the brand in about 10 countries around the world. Brevant is a premium brand with excellent products, and the latest technology, and is building a reputation as a leading competitor in these markets.

In addition, we have regional brands in several larger markets to complement Pioneer, and Brevant. Again, high-quality seed, and strong margin profile. And finally, we have an expanding portfolio of brands to support our emerging trait, and germplasm licensing effort. Enlist E3, PowerCore Enlist, and Conkesta E3 are examples of trait brands that we're currently offering. Cordius is the brand we use for soybean germplasm licensing, and is targeted at soybean multipliers in Brazil. The next item I'll spotlight is a current example around our ability to implement a route to market, and brand strategy to capture value in the US market. There are three general ways that seed is sold in the US, the direct model about a third of the market where Pioneer has a long-standing lead. Retail about another third of the market where our primary competitor is the established market leader. And finally, the farmer-dealer model, roughly another third of the market where many brands compete.

All three channels are well established, and all are proven to be effective ways to service farmers. For this, we're going to focus on direct, and retail channels. Back in 2020, when I announced the introduction to Brevant in the US retail seed market for the 2021 season, I was greeted with more than a little bit of skepticism. From our channel partners, I received questions about whether we were committed to doing business differently, respectful of how retail wants to do business, about whether we would put a competitive product into the Brevant brand, or would all the good stuff only go to Pioneer. And finally, about our approach to growth, and how disruptive our entry could be. From the farmer's side, it was a brand nobody knew with a product that was unproven, and at this point a product

nobody wanted. From the investor's side, there were plenty of questions about how we can launch Brevant without cannibalizing the Pioneer brand.

Questions about how we can possibly gain a position in retail without devaluing the market, and questions, and doubt around complexity, and can we effectively operate multiple brands as a business? With three-fold seasons of business behind us? Both Pioneer, and Brevant brands are healthy, and performing as expected. On the Pioneer side, we've gained meaningful market share compared to our primary competitor for both the corn, and soybean markets. On the Brevant side, we've already reached over 10% share of the retail channel representing over a three percentage point increase since the brand launched, in line with our expectations all while building credibility with our channel partners, and building a lineup of high-performance, high-quality products that farmers value with expanded margins that are comparable to our direct route to market.

I'm not declaring victory at this point, but we have made great progress in expanding into this important channel where Corteva had a minimal seed presence, and we have grown our retail presence in a way that complements our strength in Pioneer. I always say that there are three things that you have to do very well to be successful in the seed business. The first is continued genetic improvement, and to be able to discover, and develop new, and better products. The second is to be able to ramp up, and supply those new products in a high-quality, reliable, and efficient way. And finally, you have to be able to connect to farmers, and effectively position the value of those products. Seed does not sell itself, but when you have the trust of a customer, and you can deliver them exceptional value through product, and service, year after year, the relationship between seed supplier, and customer is incredibly strong.

These things, strong product, reliable, and efficient supply, and connection to the customer are fundamental to having a well-run seed business, and of the focus of how we execute on a day-to-day basis today. As we move forward in the nearer term, innovation will continue to be at the core of our business, and the drive to deliver strong, and steady genetic gain will always be the highest priority, that one to 2% annual yield gain that compounds over time. With our current offering of proprietary traits, we will further expand our position into the very lucrative trait, and germplasm licensing market, and this will accelerate later in the decade as we introduced the next generation of seed trade technologies, opening the door for Corteva to capture share in markets like triple stacks in North America, and above-ground insect control in Latin America. And we're positioned well to take advantage as second-generation biofuels, and hybrid wheat open up entirely new streams of value for the company.

Plus the impact from technologies like gene editing will only increase the value we create for our customers. Corteva Seed business has a long proud history of innovation, and impact around the world. As we approach 100-year anniversary of the pioneer business, the underlying fundamentals of our business are strong, and we carry great momentum forward. We've delivered growth on the top line, and expanded margins over the last several years. The investment in research has given us a tremendous portfolio of hybrids, and varieties, and our proprietary trade offerings have grown, and our pipeline is deep, and long. We've never lost sight of our farmer customers, and our relevance to farmers, and channel partners is very strong. Thank you again for joining us today, and I look forward to questions in the later session. With that, I'm going to turn it over to Robert for an overview of the crop protection business.

Announcer:

Please welcome executive vice president of the Crop Protection Business Unit, Robert King.

Robert King:

Well, good morning, and thank you for being here today, and taking time to learn a little bit about Corteva. As I stand here today before you, I'm actually much more excited about this business than I was even just a few years ago, probably the understatement of the day, but a lot's happened in the crop protection business over the last few years, but we have performed as well, or better than the competition. I'll share with you a little bit of that here in a minute. In this, despite lots of volatility as you know, as we came through the COVID cycle, and the overall supply demand, and balances that we went through. But looking forward, there are a few areas that I think you should also be excited about when you think about our business. And so let me unpack those a little bit for you as we move through these slides.

But first of all, we're going to continue to prioritize investments in innovation that are internal, and external focused on farmer-centric solutions. These solutions will span the breadth of Corteva, all of Corteva, and they do include our market leading biologicals business that we'll talk about in a minute. Secondly, differentiation is not just a different product, but it also includes our service, and our agronomy to where we help drive on-farm productivity. And finally, a relentless focus in cost, and continuous improvement is continuing to deliver margin gains from the optimization of our global network, of our supply chain, and end-to-end to make us more cost competitive. Before we go deeper into the future growth levers that we've got, let me recap a little bit about what we've accomplished over the last few years. We've delivered industry-leading growth through this market reset. The top line has grown an average of 4%, the EBITDA 2X of that, delivering a CAGR of about 6% over this time period.

This translated into a margin expansion of about 130 basis points, and it's important to know that a lot of great things did happen over this time because let's recall, let's reset back to 2022, and where we laid out several value drivers. We exited some non-strategic molecules, and products that represented approximately \$500 million in revenue over this period. But exiting these was a significant driver to allowing us to shift our portfolio. A portfolio that today sets about 65% of revenue that is differentiated. If you recall, that's a big shift from just two years ago. During this time we invested in biologicals, \$1.5 billion went into acquisitions, and that took our offering from being relatively non-existent to now being a market leader in leading the industry in this space. And then through the productivity efforts, we continue to prove our overall cost position of our operations to where continuous improvement, as Chuck said, "Is now part of how we work. It's part of our DNA." [inaudible 02:08:03] Just a few of these factors we've contributed to our improvement, and the relative performance against the industry.

So, let me unpack that just a little bit on this next slide. You'll see that in the market year basis, our revenue growth outpaced the industry despite the impact of the product exits I talked about a little bit earlier. Through strong execution on controlling the controllables resulted in margin expansion that is industry leading of about 600 basis points above the pure average over this time. This is another key differentiator for Corteva, and makes us well positioned for the future success of this business. But let's shift now to the market, and we'll flip to the next slide, and touch on the industry. The addressable market as we see it, is about \$80 billion today, and is fairly split across the regions. Historically, the global crop protection market has averaged between two to 3% growth as you look back over the last few decades. The long-term outlook for this industry, as Chuck talked about, remains very constructive. Planted area is going to continue to increase primarily Brazil, but the heightened pest pressure, and the new diseases that we're now facing is making farming harder to do.

But our technologies will continue to drive demand in this area to help them solve their problems. So, as a result, we expect the total market to be north of 100 billion by 2035, mid next decade. Do the math on this, and it translates to a long-term growth that's back to the consistency of the history, about two to 3%. So, in summary, we expect this long-term growth for the crop protection industry to be led by the

acceleration of penetration of the biologicals. So, let's flip to the next slide, and I'm going to share with you high-level overview of the key strategy elements that'll help us be successful. First, we're going to shift the crop protection business to be more farmer-centric. This is a commercial approach with differentiated solutions, and services at its core. We'll follow that by investing in our high-growth, high-return areas much like biologicals, and lastly, executing on our priorities, and operations that will drive our continued cost competitiveness. Let me go a little deeper into each one of these, and unpack that a little bit. Starting first with the farmer-centric approach to serving our customers. This is a key part of the effort of bringing differentiated solution across Corteva Seed crop protection biologicals to our customers that's going to help them meet new challenges, and hurdles that they have today. To achieve this today we believe we have a strong portfolio, and we do market-leading. That will continue to grow, and it's going to be led by our new products. New products represent a significant growth lever for our business. It includes new molecules, such as an example of Rinskor, a novel multi-crop herbicide that we expect the sales to be about 250 million this year, and we expect that to double as it reaches maturity. Another example is a launch of Haviza, as Chuck talked about, 2026's launch. This is a novel fungicide that allows us to put new tools into the soybean industry in Brazil, excuse me, that helps attack Asian soybean rust.

This will really help us be much more competitive in that industry, and put a tool in the hands of farmers that they don't have today. These are just a few highlights of what's in that portfolio to be able to bring to market collectively that will help grow our new products over half a billion dollars by 2027. These are a significant contributor to the overall differentiation of portfolios I talked about earlier. We're about 65% of the overall portfolio is now differentiated, up significantly from where we were just two years ago. But being differentiated is not only critical to how we drive value on the farm, but it's also important for the profitability of Corteva. Specifically, differentiated products carry an average margin of 10 to 15 percentage points higher than the rest of the portfolio. And the bottom line is growers will continue to invest in differentiated technologies, and our track record shows that we have a very good chance of being successful here.

So, let's build on our differentiation story, and let's focus a bit more on this industry-leading biologicals that I talked about. The market leading biological franchise is significant opportunity to expand, and grow based on the focused investments that we've got both internally, and externally. Today, we're more than \$500 million in revenue, and we expect this to double by the end of the decade. So, you might ask, how would we get there? Thanks for the question. First biological is expected to remain an extremely attractive growth segment in this overall market. We think it'll grow at mid to high single digits annually between now, and 2035. We have the best in class demand creation platform in terms of how we go to market. Our teams demonstrate the value on farm of this technology, and it's a real differentiator for how we show up. Innovation is an opportunity for us as we further develop our pipeline around biocontrols that complements crop protection, as Sam talked about.

We truly see that crop protection plus biologicals is a one plus one equals three, and know our math is not flawed. So, simply put, we are the only company in the industry that can bring these three together through multiple routes to market, bringing crop protection, biologicals, and our Seed technology to the customer. So, let's look a little bit more about another critical element of our performance. This is cost. Over the last several years, we've developed a healthy pipeline of productivity projects, and cost reduction initiatives. Several of these are being executed on today. But for example, we're making solid progress around our recent footprint rationalization decisions, and we'll deliver meaningful EBIDTA into 2025, and beyond. Now, keep in mind these were not actions that we took as a response to the market reset. These were part of the 2022 value creation levers that we shared a few years ago at crop protection. We've also been hard at work identifying new opportunities to build this pipeline, and to

continue to take costs out by balancing our internal as well as our external manufacturing partners, and increasing efficiencies in our end-to-end supply chain.

Through this work, we're expecting to deliver an additional \$200 million by 2027 on top of the 100 that we had already committed to bringing the total to about \$300 million in productivity. So, let me wrap up with just outlining the key takeaways for you today. First, we've done a lot of things right through the market reset. As demonstrated by our strong performance against our peers, and we expect to maintain, and continue in this market growth that we expect to return back to two to 3% over the long term. Secondly, we invested, and built an industry-leading biologicals platform that puts us in a unique position for this fastest growing segment of the crop protection industry, and we expect our business to double by the end of the decade. Third, we optimized our portfolio, and cleaned things up with an emphasis on differentiation, and a focus on innovation. Therefore, we're well positioned to continue as a market leader to provide the farmer customer-centric solutions as we move forward. And lastly, with our ongoing productivity efforts, we see that the profit of crop protection will drop to the bottom line more so in the coming years. So, in closing, let me just thank you again for your interest, and for being here with Corteva, but look forward to taking more questions from you a little bit later in the day. But for now, I want to welcome to stage Dave Anderson, and Tim return for a discussion.

Dave Anderson:

Well, thank you guys. It's great to be with you here this morning, and obviously thanks to everyone for joining the program. What we want to do is take a few minutes, and delve a little deeper into some of the themes, and just hear sort of personal reflections, and experiences from Tim, and Robert. We want to talk about their individual businesses, just a couple topics, but also then focus on what I'm going to call combination strength. What has really come through today, what Chuck highlighted in his remarks, in terms of having the seed, and crop protection businesses under the same umbrella, under the Corteva umbrella, which is obviously a great quality of our company. But let's start with the Seed business. Tim, obviously a distinguished career over 33 years with Corteva, and its predecessor companies.

And Tim, obviously during that period of time, just a tremendous amount of change, a tremendous amount of value that's been delivered, and a lot of value at the Farm Gate. Maybe you could tell us you touched on this, but maybe just a little more color on that special relationship that exists with the farmer, and how that has evolved where we are today, and sort of what you see now in this transition going forward.

Tim Glenn:

Yeah, absolutely. Thanks Dave, and I can talk about this all day long. I think the beauty of Seed, and we talked about it this morning, it's the highest involvement purchase, and I truly believe it's the single most important purchase that a row crop farmer has that determines their yield, and their success, and profitability over the course of the season. And farmers believe that as well. That's not just us here. Farmers- ...whole process into purchasing their seed every year. And I think the thing that stands out about Seed is that despite many options in the marketplace, and a lot of different brands, and sources for purchase, and available. The one thing that stands out is seed has not been commoditized. It is not a commodity, and farmers don't see it as a commodity. And I think when you think about it on three elements, one in seed, brands still matters.

And whether it's a leading brand like Pioneer, it's not about necessarily being the biggest, or the oldest, but just that trust, and that reputation stands out. And I could tell you, if we were in South Africa, I could take you to some farmers who believe just as strongly as a US farmer might believe in Pioneer about our Pannar business. Or if we go into Wisconsin, or Minnesota, they believe in Dairyland the same way. One of our regional brands, they have that trust, and that connection to the brand. That's very important. Second thing is the local point of sale does matter in seed, and whether it's a Pioneer sales rep who's, essentially, full-time, and 100% focused on building that business, and serving that customer's seed needs, or a full service retailer, that local point of sale really does matter still on seed, and that trusting relationship is absolutely critical between seller and buyer in the seed relationship.

And, finally, the product. We can take the same product, and two farmers can plant it side-by-side, but they can get different outcomes, if they don't manage that appropriately.

And so, they do have a strong belief that Brand A, and Brand B, and Brand C aren't the same, that the product matters. So, we're fortunate that we've still been able to maintain that differentiation, and not been commoditized, and, certainly, as we think about our formula for success on seed, being able to grow the top-line, and being able to expand margins, and get paid for value over time, I think all those things come together on our seed business.

Dave Anderson:

Terrific. Terrific. So, sounds like a good set up then for Judd going forward, and-

Tim Glenn:

[inaudible 02:21:11].

Dave Anderson:

Excellent. That's excellent. Robert, obviously, you've highlighted ... Chuck spoke about this. You've highlighted remarks today, your review, been through, obviously, a challenging period for the industry overall, the crop protection industry.

But in that period, the portfolio simplification, the work you've done tremendous in terms of building a biologicals platform, cost and productivity, you highlighted, and given the outlook for the industry, obviously, places even very significant focus on that.

Maybe you could tell us in the context of early innings, late innings, where are you on the cost and productivity? And what do you see as some of the key dimensions for that moving forward?

Robert King:

Yeah. Thanks, Dave. I think we've moved the needle significantly since 2022. Lots of effort's gone into it, and as we talked about, a lot of things have happened, but we have done a lot of good things.

Starting with our footprint rationalization decisions, we had some tough decisions there to rearrange our footprint, and get out of some higher cost plants, and be able to rearrange that a little bit.

I think the other thing that we've done is really worked on how we run the plants. We've become much more efficient. We still have a ways to go, but we've moved our people to the plants as well to allow this daily focus on plant yield, productivity, and efficiency every day, and get the resources there to allow folks to make those daily decisions, and put the accountability there, so, that folks can grab onto it.

And so, we've made steps. I think we're just getting started. So, when you say, "Where are we?" I think we're still in the early innings, if we use that analogy.

The next phase is going to really begin to step into, "How do we look at our overall network?" Internally as well as externally, manufacturing, and optimize that. What does that look like? Making sure we've got the right molecules in the right places. And, as you know, that takes time with regulatory moves, and everything for approvals there, that takes a little bit of time.

But also then beginning to look more at the logistics that go with that, the warehousing, getting cost out of that, end-to-end supply chain is something else that we are continuing to move forward on here, and that's, again, in this next phase as we look at it.

I think the third thing that really underpins this thing is about operating discipline, and that is not just in manufacturing, but that's across the whole crop protection business.

Having that repeatability, and that precision to say, "We deliver what we say we're going to, and to be able to execute in a way that we're relentless, and flawless in how we execute there."

That's what's going to permeate for us as we move forward, and take us into this next phase as we develop as a business.

Dave Anderson:

Excellent. Let's transition now to what I'm going to call combination strength. I referenced it early, and it's, obviously, again, a key theme for today is the strength that derives from having the seed and crop protection businesses under the Corteva umbrella.

There's a lot of dimensions to that. Referenced earlier, obviously, is the strength of the portfolio, the product portfolio, which is really technology-based, our different routes to market, the way in which you guys are able to leverage the commercial strength, and the footprint that we have globally.

And then, of course, it's the single innovation engine, the R&D organization under Sam's leadership, another significant differentiator.

Tim, you've seen an evolution of this, if you will, combination strength over your career. Maybe you could talk a little bit about what you've seen most recently, where we are today, and then, Robert, if you could add that maybe in terms of where you see the future, and what are the opportunities going forward?

Tim Glenn:

Sure. Yeah. I got the unique position of I started my career in Corteva when Pioneer was an independent, publicly traded company, 100% focused on seed.

Over time, we evolved to a point where we had a crop protection business, and a seed business that operated very separately, both from a leadership standpoint all the way down to the field level. And in Corteva, we've taken more of what I would call an integrated, or an aligned approach between our two business units, and I'll break to the end, I'm biased here, and I believe that we are better together for a number of reasons.

First thing is when you look at it in the eyes of the customer, customers have multiple needs. When we sell them seed, they're not done. They're also going to make other input decisions that are critical, and they want to be able to partner, they want to have business partners that they trust, and know stand behind their products, and are going to continue to bring innovation.

So, from a farmer perspective, they have needs, and even if we're not selling them seed, sometimes they might have a crop protection ... Or we don't have necessarily another crop. So, say a farmer is planting corn, and they might have a winter cereal crop in Europe, but they have, certainly, the need for those other crops.

And so, I think just having that portfolio, and that presence is important in the eyes of our customers. When you think about it from the point of sale standpoint, or the channel partner standpoint, for someone to be successful at selling seed, they need to be on the farm multiple times throughout the year. They make multiple sales calls, and then at every point throughout the season, if something important is happening, we need to be out there in the field with the farmer, and really understand what's happening.

And so, by nature, as farmers are making critical decisions, whether we're trying to diagnose potential pest pressure, or disease pressure in the field, or just help make a decision on what that next input decision is that a customer needs to make in order to get the best outcome on that seed, we're there.

So, by default, that Pioneer sales rep, as an example, is going to be talking about crop protection or other inputs that are critical to make that crop, and it's absolutely important for someone to be successful for seed that they can talk holistically about crop production beyond just seed for sure.

And then you think about it from an innovation standpoint, and I'll use an example, Asian soybean rust is, certainly, one of the most important issues in the world, certainly, in Brazil, it's one of the largest challenges that soybean farmers face every year.

A pure seed company on Asian soybean rust, yeah, maybe you can breed for additional tolerance, but that's the tool you have. It's traditional breeding methodology.

If you've got more technology, maybe you might invest in biotechnology, or in the future, gene editing in order to bring some additional weight to helping solve the problem.

If you're a crop protection company only, your answer is, "We need another fungicide. Let's go get it." And so, you're going to be very specific on one specific outcome to solve the problem, and maybe you have ability in biologicals, and you think about a biocontrol solution.

So, you've got five possible outcomes. We've got them all today, and we can make that very strategic choice on how we go about solving what's a multi-billion dollar challenge for a farmer customer, and I think that gives us maybe a unique perspective, but, also, having those tools available, whether you go one way, or another, maybe you deploy all in one way, or form, but we have those tools available.

So, from my standpoint, our mission is not to go out there, and to slam it together, and one face of Corteva in the marketplace. I talk about on seed, we are very intentional how we go to market, and we work very closely with our CP colleagues in terms of developing that.

In some places, we might have a very light touch. We'll have a seed face, and a crop protection face in the marketplace, and they're out there. And I would say we would have maybe a light touch around demand creation, or influence of the product.

We have countries today where we're integrated all the way down to one Corteva Salesforce in the marketplace selling seed, and crop protection. We have a common customer in terms of the demand channel partner.

And so, it really comes down to how we choose to go about doing it, but it's got to make sense for our farmer customers that we work with. It's got to make sense for our channel partners. And, obviously, we got to continue to be able to execute at a really high level, because what we can't do is be okay on both business units. We've got to be outstanding in terms of positioning value on seed, and we've got to be knowledgeable and credible on the crop protection side as well.

Dave Anderson:

That's excellent. Robert?

Robert King:

Yeah. Just a couple of points as we move forward to what does it look like? I think it comes back to a little bit of what Tim is talking about of being that trusted advisor, and we do that well in some areas, but as he said, "How do we begin to replicate that more so across the entire footprint that we've got around the world?"

The second thing is really working on this farmer-centric solution. The way to best think about that, though, is you that have been in the chemical industry, it's a market back. How do we begin to understand what the market needs, what the farmer needs, and pull that backwards through the channel? And to feed our innovation engine.

We have a great innovation engine that works not only across the proprietary traits that we have, but the novel solutions that we can bring together in crop protection, and put those together?

And List is the poster child for that. Right? We expect it'll be about \$1.8 billion in sales at the end of this year, and continue to grow.

The last thing around that I would say is really it's underpinned with continuous improvement. As Chuck talked about, this is a way we are now thinking about everything we do across the business, and together with the business units of how do we do things in the most efficient way to help serve the customers?

So, those are a few things.

Dave Anderson:

Terrific. Thank you very much. So, let's close with one final thought from each of you, or perspective from each of you, which is, obviously, the setup today has been the backdrop continues to be very positive, the outlook continues to be very positive.

Tim, what excites you most from that vantage point as you look to the future?

Tim Glenn:

Well, I think I said earlier, it's a necessity that we continue to be able to deliver genetic gain in the marketplace. That is an expectation from our farmer customers. It's absolutely critical, if we're going to be able to meet the demand for the future commodity, and so, that 1% to 2% compounded annual gain is, first and foremost, that is always number one.

And, for me, the exciting part is we haven't reached our limit yet. For my entire career, we've talked about what's the theoretical limit? And the theoretical limit just keeps getting pushed out there, and that's exciting.

So, genetic gain is not slowing down, and we haven't hit the wall, and we don't even know where the wall is, if there's a wall. And so, that ability to deliver genetic gain.

The other point maybe I'd highlight that gets me excited, and I'm, kind of, a boring guy. I don't change my ideas every day. When Corteva was formed back in 2017, and I looked at our seed business, there were four big opportunities that we had that were going to make a huge difference for us.

Number one was around Brazil soybeans, the biggest single market where we're underrepresented. Number two, trait and germplasm licensing where we really didn't have a presence. Number three was retail seed. And so, hence we developed [inaudible 02:33:00], and introduced that in the U.S. And number four was around North America soybean herbicide tolerance, and how can we transition into Enlist N3?

Well, we knocked one of them off. We got the enlisting done, and we're, essentially, transferred over, and we've got the leading trade in the marketplace.

The other three are still big outstanding opportunities, and I would argue the three biggest opportunities that are ahead of us-

Dave Anderson:

Excellent.

Tim Glenn:

... in terms of growing our business, and expanding our seed presence.

Dave Anderson:

Terrific.

Tim Glenn:

So, that does not change. So, those are the things that get me excited about the future.

Dave Anderson:

Terrific. Terrific. I think there'll be phone calls and communications ongoing. That'll be excellent. Robert?

Robert King:

So, a few things get me excited. I've talked about a few of them a little ago, but let me just ...
... farmer-centric philosophy of how we go to market is one that really is going to help change things for us. But then as you begin to think about, "Well, how do you do that?"

There's new products and biologicals together, pest pressure is not going away. It's growing. Diseases, as we've talked about, there's new ones coming all of the time, and we've got some great things coming through the pipeline. We talked about Haviza. It's going to really begin to attack some things that's not been able to be done before.

But putting all of those together into a solution is what really excites me. That's the capability we have that Tim talked about across everything that a farmer would want from an input standpoint, we can bring to bear, and that allows us to become that trusted advisor, because they realize, "Hey. You've got all of it. How do you think about these things together?" And solutions in combination is what's going to be key as we move forward.

I think the other thing that excites me is just the opportunity we have in our operations to become even better, to become much more cost competitive than where we are today, and that's going to drop to the bottom line.

And so, as we begin to get better in this area as well, it brings a lot of value to the whole system. But I think the thing that really excites me more than anything, and you know my past of I was a customer for a long time. Right?

So, I saw everybody coming through my door, and some of them I liked, and some of them I didn't like, but what I learned, and learned more even when I got into this business is we have some of the best people in the industry, if not the best, and I know I'm a little biased. Okay?

But we have a group that gets up every day around the world, thinking about, "How do I help the farmer become more productive?" We have people around the world. Every minute of the day, we have someone awake, and they're working on those things.

Our people are, by far, the most passionate of any in the industry, and that excites me. That potential excites me.

Dave Anderson:

That's terrific. Well, listen, I want to express personal appreciation to the two of you for all that you've done for the company, all you're doing for the company, all the support you've given me during my tenure at Corteva.

We're really proud of all that we've been able to accomplish together, the entire leadership team. Really proud that we've got the company in such great hands, and the leadership quality that we have.

And with that, it's a good point to introduce our new CFO, David Johnson, who is going to take us through the financial framework.

Thank you.

Announcer:

Please welcome executive vice president, and chief financial officer, David Johnson.

David Johnson:

Good morning, and welcome, everyone. I'm very excited to be here today, to be a part of the leadership team, and I'm going to walk you through our financial framework.

Let's start with a key Corteva advantage, which is our balanced and diversified portfolio. I think we've heard a lot about that today, and our scale market potential that'll help us build upon that.

We have a strong track record of executing with a discipline class focus, and delivering margin expansion over the past several years. In a few minutes, I'll go through our financial framework up to 2027. You'll see our forecasted sales and earnings growth is driven by three over six growth platforms, increase out-licensing, and new products in crop protection, and biologicals.

Coupled with continued self-help, this will translate into nearly 400 basis points of margin expansion over our 2024 guide.

And, finally, we have a balanced capital allocation strategy with a disciplined approach to M&A, and collaborations.

Before we start discussing 2027, it's important to have a frame of reference of what we've accomplished over the last several years. You can see the significant growth since 2020, compared to our midpoint of our latest 2024 guidance.

Sales have increased nearly \$3 billion, or 5% CAGR over this period of time. Operating EBITDA is expected to be up over 60% from \$2.1 billion to \$3.4 billion, which is a 13% CAGR. This significant growth translates into 520 basis points of margin expansion over that period.

Operating EPS is expected to be up 70% from \$1.50 to \$2.55, or a 14% CAGR over this period of time. And, finally, free cashflow expected to increase more than \$160 million over 2020 levels, translating to an average free cashflow to EBITDA conversion rate of more than 45% during this period. This is an impressive performance.

Key drivers to growth over this time period, we're proud to say we're the number one share in U.S. corn and soybean markets. You've heard us talk a lot about our journey to become royalty-neutral, but we still have more to go. By the end of this year, our net royalty expense will be down more than \$ 450 million versus 2020.

In addition, our first full year since acquiring Symborg and Stoller, our biological sales are expected to be approximately \$500 million in 2024.

And we have a strong track record of discipline focused on cost and productivity. During this period, we've delivered over \$1 billion of benefits from productivity, helping to mitigate the significant input cost inflation we've experienced. In addition to productivity, STA as a percentage of sales is down more than 200 basis points. In addition, consistent with our commitment in 2022, we have increased investment in R&D by more than \$250 million versus 2020. It is expected to be about 8% of sales.

Importantly, in this time frame, we've generated a cumulative total shareholder return of, approximately, 55%, significantly outperforming our closest peers.

The key starting point for Corteva is our strength in a diversified portfolio, and broad-based market positions of both seed and crop protection.

The highlights on this slide are what to expect for 2024, including seed and crop protectant sales by segment, and the geographic sales split. We anticipate ending 2024 with about a 56/44 sales split between seed, and crop protection. We have a growing addressable market, and scale benefits that we derive from being a global AgTech company.

You just heard Tim and Robert share some examples of leveraging cross-business capabilities, and providing solutions to farmers enabled by innovation.

The strength of our go-to market strategies, and global commercial excellence supports sustainable growth. Combined with the scale of our cashflow generation, and strong balance sheet, the combination of these benefits differentiates Corteva from our peers.

Let's turn our focus to the attractive growth outlook we see out to 2027. Starting with sales, we anticipate broad-base organic growth, continuation of our price for value strategy, along with significant contribution from three of our six growth platforms. That being out-licensing, crop protection new products, and biologicals. It will drive net sales to approximately \$18.5 billion at the midpoint for 2027.

Top-line growth and net cost improvement will translate into operating EBITDA of approximately \$4.4 billion at the midpoint, which is a 9% CAGR and nearly 400 basis points of margin expansion over 2024.

We have a track record of delivering strong cashflow. Operating EBITDA growth, and effective use of working capital is expected to generate approximately \$2.2 billion of free cashflow in 2027.

Before I move onto revenue, and EBITDA growth drivers, I want to review the assumptions we've included in our multi-year financial framework. The first being global planet area remains relatively flat versus 2025 outlook. In '25, we are expecting some modest growth in Brazil corn and soybean area, but about flat for all other regions.

Commodity prices will remain relatively stable versus current rates. Geopolitical tensions, or extreme weather, or pest pressures could impact corn, and soybean prices. But at this time, our outlook is for these prices to be relatively stable.

Next is on-farm demand remains steady. Throughout the recent industry destocking, on-farm demand and application of crop protection products remain relatively healthy, and we expect this to continue.

But we're not expecting a significant rebound in crop protection market growth rates. As you've heard from Brook and Robert, we expect the market to return to low single digit growth rate, which is aligned with historical averages.

And, finally, our 2027 financial outlook assumes constant currency rates equal to those that we provide in 2025 outlook. Let's go through revenue drivers for 2027 in a little greater detail. We have the bridge starting with the midpoint of our 2024 full year guide, which is \$17.1 billion.

You can see we're estimating low single digit revenue growth rate out to 2027. We start with the base seed business, which can't be underestimated. This represents the continuous improvement in yield advantage technology that's going to drive pricing, and share gains over the period.

The other key drivers for seed, which we'll talk about more detail in a minute is increase out-licensing income. While it's off a relatively small base, we're expecting licensing income to increase 80% during this period, and this is not just in soybeans, but now corn, canola, and other crops as well.

The other key components are two of our growth platforms, sales from crop protection new products are expected to be up about 30% over this period of time, and biologicals, which we are forecasting double digit CAGR out to 2027.

Excluding these crop protection items, the base crop protection business is expected to be down versus 2024 driven mostly by continued price pressures into 2025.

Before we walk through the operating EBITDA bridge, I wanted to provide a more detailed outlook on self-help items, one of which is the continuation of the improvement of our net royalty expenses.

When we first started this journey, we were paying about \$700 million of net royalty expenses. We had made a lot of progress since 2019. By the end of 2024, we expect that number to be about \$230 million.

Improvement so far has been driven mostly by the success of Enlist E3 soybeans in North America, both from the transition to Enlist trade, and transitioning to the trade to our germplasm.

You've heard from Sam and Tim about other opportunities we have as we rely less on third-party technology, and have the ability to sell more of our own technology to others.

During the first half of this decade, the improvement of net royalty expenses was heavily weighted to cost reduction. Our improvement from 2025 through 2027 will most likely be driven by increased royalty income as we ramp up out-licensing, and not just endless soybeans, the Conkesta soybeans in Brazil, and PowerCore and Enlist corn in multiple regions.

We're happy to say that we now expect to be royalty-neutral by 2028, and become a net out-licenser by the end of the decade.

In addition to improvements in net royalty, the other two components of self-help actions are input cost inflation, and productivity. For the past several years, we've experienced significant inflation in the seed business driven by higher commodity prices, lower weather-related production yields, higher production costs, including inflation, on labor, freight, and warehousing.

While not all these costs are expected to reverse, we will start to see the benefit of lower commodity costs in 2025, largely driven by North America and Latin America. We expect to see a continuation of this benefit through 2027, given current commodity prices.

2025 will be the second consecutive year of low single digit deflation in crop protection raw materials. Both seed and crop protection are expected to deliver productivity savings, including benefits from their crop protection footprint actions, manufacturing optimization, which Robert spoke about earlier.

Together these benefits will translate to approximately \$1 billion, which will be partially offset by inflation, and other production costs. These production costs include higher freight and labor, as well as higher seed production costs related to transitioning seed trade technology in North America.

Some of these drivers of earning growth, we have a solid top-line growth continuing our price for value strategy, and gains from our growth platforms. Together with continued focus on calls to actions, we're forecasting operating EBITDA of approximately \$4.4 billion by 2027.

Demand for yield advantage technology driven both price, and volume gains along with reduced net royalty expense will drive earnings growth in seed.

Volume gains, and an improved product mix in crop protection will more than offset price pressures in the base business. Cost improvements in both seed and crop protection will drive significant earnings growth on top of the revenue drivers. You heard from Chuck and Sam that we will continue to prioritize investment innovation, and expect R&D to grow in line with revenue, and remain at about 8% as a percentage of sales.

We expect SG&A as a percentage of sales to remain flat versus 2024. Combined, this translates into operating EBITDA margins of 23% to 25%, which at the midpoint is nearly 400 basis points of margin expansion versus 2024. And, importantly, we expect sales, operating EBITDA, and margin growth in both seed, and crop protection.

I want to transition the cashflow and capital allocation. 2024 guidance for a free cashflow to EBITDA conversion is 45% to 50%, which is consistent with what we expect as an average of 25% to 27%. This cashflow, together with our investment grade balance sheet provides us flexibility in how we deploy capital. Our deployment allocation strategy hasn't changed much over the past several years, a disciplined strategy of investing for growth while returning cash to shareholders.

We expect capital expenditures to be about 3% to 4% of sales, which is consistent with the current level of spend, about \$600 million for 2024. Our CAPEX is focused upon products with high ROI, and support growth in attractive areas.

On our dividend, we increased our dividend four consecutive years, and we expect to continue to grow with earnings. It doesn't define us, but is an attractive element of our valuation.

Share repurchases are a big part of the story. As you've seen earlier today, the board recently authorized a new \$3 billion share repurchase program confirming our commitment to enhance shareholder value through share buybacks. Between 2025 and 2027, we expect to return approximately \$4.5 billion to shareholders via dividends and repurchases.

And, finally, on M&A, here's how we're thinking about M&A along collaborations and support organic growth. Building from our core business capabilities, M&A and collaborations become a consideration in our growth strategy where we identify a product, or technology gap, and where we can accelerate speed to market.

These would be build-ons to our current strong base. It's critical to our M&A strategy that any target fit not just in our business, but fit our financial criteria as well. That being above market growth, the ability to achieve attractive EBITDA margins, and returns that exceed our internal hurdle rate. The biological acquisitions in 2023 are great examples of this strategy in practice.

Before I hand it back to Chuck for closing remarks, I want to review a checklist to remind you of our strategies for value creation. We have significant growth opportunities during both top-line and margin expansion, continuation of our price for value strategy while increasing out-licensing revenue, and incremental sales growth from crop protection new products, and biologicals, which will drive much of our top-line growth.

Focused calls to actions, including footprint optimization, coupled with input cost deflation will drive additional operating EBITDA benefit. All together this translates into meaningful improvement out to the year 2027.

Finally, a strong cashflow and balance capital allocation strategy, including disciplined M&A and collaboration, a criteria will drive shareholder value for 2027, and beyond.

Again, I'm excited to be part of the team, and with that, I'll hand it back t Chuck for his closing remarks.

Announcer:

Please welcome back, chief executive officer Chuck Magro.

Chuck Magro:

You guys have been sitting for a while. That's the story. It concludes our prepared remarks for today. Hopefully, you understand the journey agriculture is heading towards, and our role in it. We have a very, very exciting future. I think the plan that we laid out for 2027, it's simple, it's straightforward, it's in our wheelhouse when it comes to how we control things, and it sets us up for growth.

The '27 numbers are interesting, but I think what we wanted to demonstrate today is that we're building a growth platform that's going to go through the decade, and into the next decade with the science and technology that farmers need.

I think we are uniquely positioned as Corteva with our world-class technology, the brands that we have that are second to none, and, of course, the advantages we have with the channels to market.

And then, finally, and I completely accept that I'm biased here, we have a world-class management team with a very diverse set of experiences, many with a deep, deep understanding of agriculture, and actually farming, and others from outside of the industry.

And every day that we get up to focus really on three things, our employees, our customers, and driving long-term shareholder value. So, thanks for your attention today. I think we're going to have a short video, and then all the speakers are going to come up for a little longer Q&A session. We'll try to make that up with a few extra minutes here. We'll go till 12:30, and we've got our full group as Chuck said, and we're going to jump back into your Q&A. Same rules apply. Just raise your hand, and we'll try to get to as many of you as we can. We'll take our first question.

Jeff Zekauskas:

Hi, this is Jeff Zekauskas from JP Morgan. I guess this is a question for Sam. My understanding is that the Monsanto buyer people, as far as short stature corn go, have a GMO solution because short stature is a recessive trait, and they think by genetic modification what they can do is have higher production. It sounds like in your approach you have gene editing approach that would make short stature a dominant trait? Is that the case, and is this really the first larger innovation in gene editing?

Sam Eathington:

Yeah. Great. Thanks, Jeff. We have two versions today. We have one that we developed through our sort of traditional plant breeding program and a version we've developed through gene editing, which we're sort of playing a little bit of how's the regulatory going to play out and timeline and which one do we have our breeder start working on when.

We're focused right now on the native version. That's the one we plan to launch in 2027, and they're both, our native version and our gene-edited versions, would be a dominant gene. So we deploy it in one parent in the hybrid. So we make, in our case, we could make one parent like the female be a short-statured female. The male would be our typical normal crop that would produce a short-statured hybrid in the farmer's field. We only have to deploy it in one, which gives us a lot of flexibility and speed of

doing that. If we get a little bit of an outcross, then the hybrid seed is all short-statured, so we're already dominant. We don't have to go to transgene to do that.

Kim Booth:

Great, thank you. Next question.

Josh Spector:

Hi. Josh Spector with UBS. One near term and one longer term both on crop chems. First on crop chems, in the outlook you have when you talked about pricing pressure, is that annualized in where you are today or are you assuming any further pressure as you look into next year or '26? Then longer term when you think about gene editing, how does that impact your growth of crop chems over time? Would you get paid for the yield plus potential saving on crop chemicals or is that something we need to think about a decay rate in some of those heritage products?

Chuck Magro:

Want to take a hit at the pricing question?

Robert King:

So I'll get started and let the resident numbers guy here fill in a few of the blanks for me. Let's start with the latter question there around how we think about gene editing in the future in crop chemicals, how that fits in.

Things continue to evolve. We talked about earlier around new pressures, around pests, new diseases coming in, and that's going to continue to drive demand there. Our technologies are needed from those standpoints, and it continues to see that. You see that in a growth of new products, et cetera. As we get into further down the road, we still think there's a lot of complementary impacts on this or complementary effects on it, and that's why we think we're stronger together, like we talked about earlier around how we look at our innovation across these platforms and LISP being one of those. And we continue to think about those things as we look at those platforms across.

So over the next three years, we think they're not something that we have really contemplated that there's a big change, and we expect that there will continue to be growth back like it's been, 2 to 3%, over the long-term horizon for this business. And keep in mind that as in that is biologicals that are growing in that high single digits, low single digits, excuse me, mid single digits to high single digits across that time, and we're continuing to expand in that across our business as well.

Chuck Magro:

Maybe Josh and then David can answer the pricing question. So two dimensions that you've asked about for gene editing, right? First of all, the biological business we think is going to be transformational with gene editing technologies. Sam and his team are gene editing microbials right now. We think that it's going to take the efficacy up significantly over time, and to be quite blunt, we are absolutely are expecting to get paid both for that but also in the seed technology just like biotech.

Biotech, by definition, is either weed resistant or insect resistant, and you get paid for adding that technology because it drives the protection of the crop, and that defaults to yield, and we price for value. So what we find that we think is going to happen with gene editing is there's going to simply be more yield, and we'll still employ the same price for value strategy, and we'll share that like we always

have with the farmer. They will benefit more than we will, but we will absolutely get paid for bringing gene edited technology, both the seed and for biologicals. Now, CP price short-term question. David?

David Johnson:

Yeah, so in our initial 2025 outlook, we do have a small single digit, kind of negative price impact in '25 versus '24 for CP price, which is much less than what we've experienced in 2024. Kind of going into '26 and '27, stabilized pricing over that period of time. I think the other critical item obviously is what Robert has said is the mix should be better going forward as our mix shifts more towards biologicals and new products.

Kim Booth:

Great. We'll take our next question.

Edlain Rodriguez:

Edlain Rodriguez, Mizuho. Chuck, as you mentioned in the beginning, your 2022 guidance for '25, you fell short of that a little bit because of unforeseen challenges in CP. As you look to 2027, what do you see risk to that number? What known unknowns or unknown unknowns do you see out there that could derail your guidance?

Chuck Magro:

Yeah, so Edlain, good question. Look, first of all, let's just call it what it is. We called it a framework because it's not a guidance. This industry is dynamic, it's quite volatile, so it's our best view of today on what we can control. David gave you the assumptions, but to me if I distill all of it, the lessons learned, if you can say that since 2022, we got most things right, and we delivered on almost everything that was under our control. We missed the CP dynamics like everybody else.

So what can derail it is another step down in the CP industry. So if you recall the assumptions that we've given you, the low end of the range is flat for '25, '26 and '27. The upper range returns to growth in low single digits, I think about 2 or 3%. So that's the framework we've put in place. If we have another step down in CP, and we're not anticipating that or else we would've modeled it, but that is something.

The other, which David called out in his prepared remarks, it wasn't on the slide, but I'll throw it out because I know it's relevant for today is some sort of large geopolitical disruption. There's just no way we can predict that as an organization, and we are in a globally regulated market environment, and we do need some connection and integration to get our products approved.

Now the '27 plan doesn't require any significant approval, certainly from the US we talked today about Havis, we still need Brazilian approval. I think Sam, for Havis, which we're expecting it is a next generation fungicide. It's very good for the environment and it gets the job done, but there's limited amount of regulatory that we need in the 2027 timeframe as well. So that's the messages I'd leave you.

So what we're really focused on right now is where is the CP industry heading? I think when it comes to seed, we know the genetic gain we've got in the next versions of hybrids that we'll roll out over the next three years because we've been working with them in some cases up to seven or eight years. So we're comfortable with that. Volume will move modestly, Tim. I don't think there's a significant pros and cons on terms of volume. So we're feeling very good that the CP or the seed strategy on price for value, relatively modest volume gains, and new technology ramped up by our out-licensing capability. And then when you look at CP, I think we've taken a conservative view of the market, but in '26 we expect it to return to normal growth rates, so hopefully that helps you.

Kim Booth:

Great, thank you. Next question.

Kristen Owen:

Hi. Kristen Owen from Oppenheimer. So as you're putting more value into the seed bag, you gave the example of the triple stack technology, we've got the pipeline now, gene editing, the seed applied technologies, disease traits. Just how does this influence your long-term seed pricing algorithm? Is this just table stakes or is there upside to your low single digit price assumptions?

Chuck Magro:

Tim, go ahead.

Tim Glenn:

Yeah, I think our pricing is based off of value, and we have a long-standing relationship with our farmer customers, and when they get a benefit, when we deliver them a new product, then we get to share in that value. And I don't want it to turn it into an equation where you sit there and say one-third, two-third type value share, but at the end of the day, that's sort of the way it works out over time.

And so as we think about longer term, I made the comment about as gene editing drives genetic gain or brings incremental value, we absolutely do expect to share in that. I mean in the '27 framework, probably not a lot beyond what we're talking about today because those products are well-known, and it's sort of the continuation of where we're at. But longer term, when you think about traits that we put in the seed, when you think about treatments we put on the seed and genetic gain, we've got a long-standing history of being able to capture our fair share of value of that. And again, in my history, I'm 33 years, I remember when most expensive unit of seed that we had was about \$90, and farmers were paying somewhere around \$20 an acre equivalent for seed, and today it'd be substantially higher than that. Over the course of that career it'd be over \$120 an acre in North America, for example. So we've captured our fair share of value as we've delivered value to our farmer customers, and I think that will continue.

Kim Booth:

Great, thanks for the question. Next?

Steve Byrne:

Yeah, Steve Byrne, Bank of America. Tim, is it fair to say that your corn seed market share in the US and Europe is both around a third?

Tim Glenn:

I'd say that we'd be above that in North America across all brands, and we'd be below that. We're number one in Europe, but we would not be at a third, so we'd be a tick below that. Yeah.

Steve Byrne:

The point being, you have 185 bushel yield in the US. In Europe it's 109, which is what it was when you started your career. Why is there such a yield drag there? How much of it is genetics? And where I'm heading with this is if the European Commission with their changes develops our gene editing pathway for seeds in another year, is this a driver of your European corn seed genetics? And to the point you're

driving, you're talking about getting paid for yield, you move that up from 109 to whatever you think you can get it to in a few years. Is gene editing a key to that business?

Tim Glenn:

It's frustrating because like you say, one point in time, I'd say US and European yields weren't that far apart. And then we kind of went into different directions, say, starting in the nineties as the US had rapid adoption of different technologies, and in Europe I'd say there's been stagnation or in some cases maybe even less technology available for growers.

Genetics, I'd say at the core of what we sell in Europe, they'd be highly leveraged from US genetics. So when you're talking about 110 day genetics, for example in the US, it's going to look a lot like what we would sell in Western Europe in that maturity market. So the genetic potential is there. Obviously there's always going to be the difference between environments and sort of management intensity. I mean, US farmers are very good. They are very good at implementing technology, not just in the seed but in all management practices from equipment in terms of other field practices. And in Europe, maybe the incentive hasn't always there for that same level of intensity.

So it's frustrating for sure when you see the divergence of where it's gone over the last 30 years or so. And certainly we would love to see acceptance of more technologies, and we're not talking about biotechnology, but certainly gene editing what could potentially open the door to create a lot of value for European growers. I mean farmers I talked to in Europe, they want tools and technology, they want to be able to go out and drive. They just haven't had the same tool set available that we do in North America or in most of Latin America as well.

Kim Booth:

Great, thank you. Next question. Chris?

Chris Parkinson:

Sorry. Chris Parkinson, Wolf Research. How should we think about the dynamics for EPS growth versus EBITDA growth? You put out a fairly healthy buyback number this morning, which I assume reflects your conviction in the business and some of that framework you put out here today. And when I look at that and cash interest expense, it seems like '25 is more of a rebase versus all the dynamics of '24, but how should we think about that '26 versus '25 and so on? Thank you.

David Johnson:

Sure. I'll give one big asterisk, and that will be the tax rate. So that's the one thing that we, and probably the reason why we didn't provide an EPS framework at this point in time. But all other elements, I would say basically consistent with '24, '25. So except for the buyback of course. So I think that when you add in the buyback where our interest expenses won't have you fairly consistent, it's just the tax rate at this point in time is a little bit more open-ended, and that's why we didn't give an EPS number.

Kim Booth:

Great, thank you. Next question.

Frank Mitsch:

Yes, hi. Frank Mitsch from Fermium Research. Robert, I might be confusing apples and oranges here, but I believe on one of the charts you showed cost of goods sold, benefit of like 200 million over the next few

years, benefit there. And then David, I think on one of the charts you showed deflation for CPC. You also included some productivity. It looked like a lot bigger number. So I'm just curious if you could give a little more color on the deflation side. And then secondly, if I could ask a simpler question for anybody on the panel, we did have an election two weeks ago. What sort of initial thoughts do you have with respect to potential changes in regulatory environment, trade environment, tax rate, et cetera? Any comments there would be helpful? Thanks.

David Johnson:

I'll take the easy one. When you look at the gross productivity and cost reduction benefit, we said it was about a billion dollars. We have like a \$300 million headwind we're saying for all these other costs issues. So it's 700 million net in total. I'd say when you look at where that accrues between the business units, it's almost 50/50. Okay? So we are seeing about half of it going to crop protection, half it going into seed.

It's a little bit different at the gross level because we have a little bit more productivity baked actually into seed around utilization and rates there. And then we're actually seeing in crop protection a little deflation into next year, into 2025, but we haven't baked in much after that. So you add in what Robert said about footprint optimization, which was on his slide, which is that couple hundred million plus some CP deflation also with a little bit of negative cost, that would be the half that's in CP. And then seed by and large has a greater share of the negative kind of the headwinds with that seed trade technology transformation we were talking about, but then also a greater portion of the productivity number and a little bit of the deflation. Now the easy question.

Chuck Magro:

Yeah, so thanks for asking the question, Frank. So early days, it goes without saying, we're still trying to figure out who some of the players could be, and they're biased for regulation and policy. So we're not going to get overly specific today except to say, look, our focus at Corteva, and it's been like this for years, and I think it will continue. If you step back, we want to put the very best, the safest, most environmentally friendly, but technology that works in the hands of US farmers, and we want US agriculture to remain among the top in the world.

And if you step back and you think about, well, what's it take to get there? Well, the existing US regulatory framework, even though we would love to see things move along a little faster, you heard today it's 12 years plus for a new CP product. It's close to 16 years now for a biotech trait, a lot of that is because of the regulatory process.

And then if you heard from Sam and from Robert, some of our new technology is actually much better, more environmentally friendly, more sustainable, in many ways, equally effective. And we'd like to see sort of fast-track on some of that new technology and maybe we can sunset some of the older technology. So that's what we'll do. We're going to continue to be sort of the voice of using science through the regulatory process. It has to come down to making proper decisions and assessments based on science. And we're a science and innovation company. We think that plays to our strength.

Now the other thing I'd say is if you look at the last two years with what we've done in our portfolio, I think we're built for the new environment, whatever that is. And if you look at just Europe and the new Green Deal, and who knows what will exactly happen there once they get through some of their elections, but a lot of our new technology is geared for a more regulatory intensive environment, ones that have higher bars.

And some of our technology, if you look at the Endangered Species Act here in the US, we were the first to go through that, and we did it very well. So we've seen this coming. I think that this is a trend that will continue and investing with biological solutions and low usage rate chemistry will be the path.

Now I say all that to say, look, we need to see exactly how this all comes together, but we like our portfolio. We don't need a lot US regulatory up until 2027, and maybe my last plug will be, if you look at American agriculture, by any definition, it is a huge success. Farmers today on the same land are producing three times what their grandparents did. Just think about that. And it's hard work, it's no how's, as Tim said, but it is also having the best technology available to them. And we want American agriculture to succeed because look, the US is one of only a handful of countries that actually produces more than it consumes. And from a global food security perspective, we need the US agriculture to be an exporter of food. And I think the one thing we have learned since COVID and the supply chain disruptions and then the Russian-Ukraine War is food security is an important dimension of national security. And I think people get that. I really do.

Kim Booth:

Great, thank you. Next question?

Richard Garchitorea:

Hi. Richard Garchitorea here. It's hard to say. So you've been fairly active on the M&A space, obviously in the biologicals, spending 1.5 billion over the past year and a half or so. Sounds like you're looking at just continuing to do bolt-ons. Is that fair to say? So most of the organic growth is what's going to drive that growth in the biologicals. And just you've also announced a lot of strategic partnerships, know Bungie, Chevron, BP. So is that how we should think about how you are going to develop the other frontier markets and how do you monetize that going forward?

Chuck Magro:

Yeah, so what you see is probably what you're going to get in the future. I'd never take anything off the table, but we don't think right now, we're certainly focused on large M&A, we don't think we need it. The growth plan is primarily organic. Now, I think we wanted to enter the biological space, and we thought we could do a whole bunch of small roll-ups. We decided the boost in the world, and that brought us a platform to deliver this technology. And we're very good at acquisitions. They've exceeded or met or exceeded our plan.

We would be interested to do more M&A in biologicals, but most of them are of the size and scales that they would sort of be in your definition a bolt-on. But we're constantly looking at opportunities.

Now, Sam mentioned Corteva Catalysts, so that will be one area that we'll probably allocate more capital to, and it's not just taking either full ownership or partial ownership. There's a lot of partnerships that Sam and Brook and their teams work on because there's a lot of great innovation going on in agriculture around the world, and we've built now a machine to kind of tap into that. And you'll probably see us do actually more partnerships, whether it's sharing agreements, and we may take some equity, and we may sit on some Boards to get access to that technology. So you're right, the way you're thinking about it's going to be primarily organic. We will look for more M&A in biologicals. We're constantly looking for other M&A, but that's what we have on our horizon. But we're no longer a closed shop when it comes to our R&D. We want to connect with the best in the world, and we've made several announcements that say in the last two or three years that should demonstrate that.

Kim Booth:

Great. Thank you. Next question?

Arun Viswanathan:

Hi. Arun Viswanathan, RBC. Way over here. Sorry. How are you doing? So I guess I had two questions if I could. So the first question is when you rewind the last couple of years and look at CP, what do you think you missed? What lessons have you learned? Have you gotten closer to customer inventory levels? Or maybe you can just give us your perspective on that little incident. And then I guess the second question I had was more on the balance sheet. Obviously you carry very low leverage. Are there thoughts about potentially increasing that and taking on a little bit more debt if it could serve faster buybacks or whatever have you? So thanks.

Chuck Magro:

Maybe I'll take the CP macro question, and David, you can take the debt. We've obviously asked ourselves that more than once. Our Board has asked that to us many times, as they rightly should. And when I look back on it, this might not be the answer you want to hear, but I don't think we would make a lot of changes. Look, we all knew that there was more product going into the channel than coming out of the channel. On farm application, the material coming out of the channel, was very steady, it was healthy, it remains steady, and it remains healthy today. But what happened is the channel, because of the supply chain disruptions through COVID and all of the dislocation that we had as an industry, the channel ordered more than it wanted to, it needed to, and it all showed up.

I'm not sure we would've turned away orders from our channel partners that were viable companies that we've done business with for decades. Now, if I had one sort of pullback or one take back that we should have done, and this is us and many, we should have pulled back production sooner, and we had seen this coming, we knew that there was going to be sort of a period of time, and we allowed our inventory to build too much inside of our own network, not in the channel. And that's probably an area where we've spent a lot of time thinking through on the early signals.

So the way we call it inside of Corteva is, and Brook's sick of me saying this, is I want a capability to look around corners. And that's what we've tried to build. So to your question, lessons learned. We now have more intelligence in China. We have more intelligence coming out of India. We're employing artificial intelligence. We're trying to get smarter in this area, and we're trying to find those early signals that will help us manage our overall supply chains. But I don't think we would've changed market behavior all that much except maybe been a bit more leaner when it comes to our supply chain a little sooner. That's my view on that. You want to talk about debt?

David Johnson:

Sure. I think whenever you look at the framework we put together, I mean coming into the organization, I'm very fortunate to inherit a very strong balance sheet. And I think that is a critical differentiator between Corteva and maybe some of our others in our industry that we have that advantage of having that strong balance sheet, so I see us continuing a similar type of strategy going forward, something we'll always evaluate. We have shown a four and a half billion dollars worth of expectation of cash back to investors, which I think over that three-year period of time is pretty robust. But again, as we sit here today, and our current framework is kind of go ahead as we have been, but we will continue to evaluate the strength and ability to use our balance sheet when needed.

Kim Booth:

Great. Thank you. Next question.

Rahi Parikh:

Hi. Hi, this is Rahi Parikh from Barclays. Well, first off, I appreciate all the comments on US regulation and de-stocking. Another question would be on your seed net royalty expense. So could you just talk about the cadence, maybe why it's slowing down a little bit next year? I know net-net from this year, next year it's like a hundred million each year, but maybe why is it more flattish in 2026, 2027? What are we looking for? What are we waiting for? Thank you.

Tim Glenn:

Yeah, to me it's really the mix of products that we're selling and then we're starting to talk, we talked about sort of lapping where royalty is brought in or exceeding what we're cutting out over that period of time. So bottom line is we're always going to pay royalties, or we're going to pay royalties for a long time. It's about what that net balance is and at what point do we cross over. And so this is the last year I think that we'll actually have a bigger reduction in what we pay out versus what we collect from this point forward. That payback sort of does flatten out because we're fully converted essentially on the North America soybeans, for example, with two Enlist E3. There'll still be reductions as we cycle into new technologies, but it's not going to be the big move like we saw there.

So then it really comes down to how quickly can we start to generate, and we're in the early stages on corn. We're in North America corn for the first time with PowerCore Enlist and gotten great reception from seed companies. There'll be a natural ramp up there. We are sort of approaching that tipping point with Conquest E3. In Latin America, I mean, I know it probably seems like this has gone on forever, but the reality is we got to have the genetics catch up with the trait, and there's a very strong product in the market today, and if we don't have the genetics, then we aren't going to get the adoption.

We see where the genetics are today, both from our breeding partners and within our own breeding partner. And in the next couple of years, I think you're going to see that really start to accelerate. So some really interesting things that happened, but it's really that cadence has shifted. I won't say the easy stuff is gone, but now we've got to go out and earn it rather than just sort of the transition.

Kim Booth:

Great. Thanks, Tim. Next question?

Joel Jackson:

Joel from BMIL again. Chuck and team, you said one of the risks to '27 would be if there was another step down in CP. So maybe ask a couple of broader questions for CP. So how do you factor in for '27 precision spraying as that's starting to progress? And then the question everyone's asking the last month, how do you factor in if the administration in the US goes a little anti-CP in the next couple years, how do you factor that into your numbers?

Chuck Magro:

Yeah, Joel, so we haven't factored in a reduction in CP for either one of those just to be candid. We don't think that precision application of CP is something that was going to impact certainly our business in any material way.

If you think about that technology, it's really going to be focused, at least in the early days, in sort of non-selective herbicides. And of course we've de-emphasized that, obviously we have the Enlist Platform, but beyond that, and what we've tried to do is really give farmers other choices in terms of using low usage rate chemistry, maybe using, if we can get the volumes small enough, they can use drone aerial applications. So we don't think that this has a huge impact on the overall supply-demand of global CP.

From a policy perspective, like I said, it's too early to tell exactly what will happen. What we're hoping is if the new administration wants to see more environmentally friendly products being used on the farm, that's already in our pipeline, so we have a lot of these products that we can bring to the market as part of the solution. We've dealt with a lot of these regulations in Europe for many, many years, and we've grown our business in Europe as well.

So I think early days, but our view is that these things will work themselves through the course, and the big drivers for CP will be the demand drivers, which will be more area coming out of Brazil. It's going to be an increase in pests and disease that we're seeing around the world. So when you look at all of that, the scale's tipped to sort of low single-digit growth rates for globally for CP.

Kim Booth:

Great. We'll take one more.

David Begleiter:

Oh, thank you. Sam, you mentioned hybrid wheat. What about rice? Is that a similar opportunity? And if so, where do you stand and when could that happen? Thank you.

Sam Eathington:

Yep. So there is hybrid rice today in certain markets like the US, there's some hybrid rice. The big market that we play in today in India is all varietal, and there's a lot of different varieties as you go across India for the characteristics they want in that crop. We have not done a lot of work on hybrid rice. We're focused on the wheat right now today, but down the road, who knows what the technology might bring?

Kim Booth:

Great. And that will conclude today's webcast. We hope you enjoyed it. Thanks for your interest in Corteva, and we hope you have a safe and wonderful day.