



**Season Six: Episode Four**  
**AI & Agriculture: Data-Driven Fields, Resilient Futures**  
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**Hillary Ribaudo:** In 2022, Nelson Farms - a dairy farm located in Vermont's Northeast Kingdom, invested in a rotary milking parlor. And in September, I got to see it in person.

**What time does milking start, Richard?**

**Richard Nelson:** Two o'clock.

**Hillary:** Picture a giant carousel, but for cows. It uses robotics to increase efficiency.

**Richard:** It's a seventy-two-stall milking system.

**Hillary:** This is farmer Richard Nelson.

**Richard:** Beside us is the laneway. It comes up, the cows are stepping onto the rotary.

**Hillary:** Richard explains that as the carousel slowly turns, the cows walk onboard and into their own stalls. Once they're on the platform, the cows rotate towards a robotic arm.

**Richard:** And then it approaches the robot, which has a 3D lens on it. Senses the cow in the stall, goes forward, and you have the person wiping the teats off and stimulating the udder.

**Hillary: The moo-ing you're hearing is not a sign of distress. In fact, lactating cows feel relief when they're milked because it eases the pressure that builds up in the udders.**

**Richard:** And then from there it goes another five stalls and someone is attaching the milking unit onto the cow.

**Hillary: That pumping sound is a pulsating mechanism that mimics the natural pressure and rhythm of a calf nursing.**

**Richard:** So what the pulsate are doing is inside that teat cup, there is a membrane and it closes to give the teat rest, and then it opens up and vacuum extracts the milk. Closes to rest, opens, closes, opens, and it's all based on science of the optimum beat.

**Hillary: Each cow wears a flex tag on one of their ears that sort of looks like an earring, and it works like a FitBit because it uses AI to capture biometric information.**

**Richard:** Cows can't talk to us, but that technology can. It learns that cow every day. It learns something new about that cow. So, the longer that cow wears that tag, the more information it knows about that cow.

**Hillary: With the data from the flex tags, Richard and his team can monitor the health of every single cow, which in turn, increases profits.**

**Richard:** A healthy, happy cow makes more milk. And with this technology, when her rumination drops and her activity spikes, they make a diamond on the graph. And we know within so many hours of peak ovulation that if we breed them, we have a much better chance of conception.

**Hillary: Overlooking the milking parlor, there's a computer room where all this information is stored.**

**Richard:** This computer screen right here will allow us to look up any cow that's on the deck and see what her milk production was this morning, this afternoon.

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**Hillary:** Dairy farming technology has come a long way since Richard's father first learned the trade. Back then, farmers would place milk canisters in what was called a spring box, which is a cooling system that used flowing spring water to keep the milk cold.

**Richard:** I said to dad, I said, did you ever imagine when you were a little boy putting milk in a spring box that this is how we'd be milking cows now? And he said, never would've imagined it. And how the technology has changed and how we're able to be so much more efficient and feeding the world.

**Hillary:** But that doesn't mean farming today is easier. Although new technology is essential, it's also costly to install and maintain. Farmers like Richard face economic strain from labor shortages, regulatory changes, and threats like pests and diseases that can destroy entire harvests.

On top of that, there are urgent environmental concerns. More frequent severe weather events, shifting growing seasons, and finite natural resources can all impact yield and the harvest predictability that farmers rely on.

**Richard:** We've really made just about all we can make. But there's only so many acres in a growing population, and we need to feed everybody. So, we need to do it through science and new technology.

**Hillary:** No farmers, no food.

**Richard:** No farmers, no food.

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**Hillary:** This is Unseen Upside by Cambridge Associates. I'm Hillary Ribaud

AI has made its way into every major system, including how our food is grown. But can it help sustain the future of farming?

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**Hillary:** When I went to Vermont, I wanted to visit the farm Richard and his family have built over generations. And this is a special trip for me because I grew up on a neighboring dairy farm and have known the Nelsons my whole life.

**Richard:** My father started in April of 1963, four months before I was born with eight cows on a rented farm.

**Hillary:** And over the years, Nelson Farms has expanded to keep pace with growing demands.

**Richard:** We now own 8,000 acres of land. We crop 2,700 plus acres of corn, 2,000 acres of hay land, and we own just north of 2,200 mature Holstein cows and around 2,400 heifers.

**Hillary:** For farms of this size, scaling successfully has meant investing in modern tools. Precision farming equipment — like auto-steer tractors with GPS and data-driven irrigation — are helping farmers boost productivity while minimizing environmental impact. But adopting new technology goes beyond expanding businesses and making a profit. Farmers are responding to a huge challenge—maintaining the global food supply as climate change threatens production.

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**Hillary:** Farming technology has evolved at an unprecedented pace in the last decade, thanks in part to the rise of artificial intelligence. But in addition to smarter equipment, AI is being leveraged for another fundamental part of farming: crop genetics.

**Today,** AI is making plant-breeding faster and more precise. And the potential is game-changing.

**Catherine Feuillet:** The convergence of these three elements at the same time, the genomics revolution, the AI revolution, and the editing revolution is absolutely an amazing moment in the history of plant breeding.

**Hillary:** This is plant biologist Catherine Feuillet. Scientists like Catherine now have the tools to design seeds that increase yield with less resources, and investors are seeing the opportunity for financial and environmental returns. The agricultural technology market, or AgTech is projected to reach close to \$50 billion by 2030.

**Lucas Mann:** When I think about AgTech, I think about tools to substantially change yield.

**Hillary:** Lucas Mann is a co-founder of Acre Venture Partners, a Santa Monica based venture capital firm that invests in companies driving transformative change in food and agriculture.

**Lucas:** So mostly in the world, the grain crops are corn, wheat, rice, and soybeans. All the grain grown in the northern and southern hemispheres can be referred to as the “pile of grain”. If you add it all up, there's 5.5 to 6 or 6.5 months of inventory. That pile is the only thing that stands between humans and extinction.

**Hillary:** With the global population projected to reach almost 10 billion by 2050, farmers will need to grow roughly a third to a half more food than they do today. At the same time, the changing climate and shifts in weather patterns threaten the agricultural industry's ability to secure the food supply.

**Lucas:** We need to focus on the business outcomes and the sustainability outcomes in lockstep. We need to make progress because time is short

**Hillary:** For Acre Venture Partners, making a bottom-line impact doesn't mean compromising on sustainability.

**Lucas:** We started Acre because we viewed a lack of domain expertise in food and agriculture in the venture asset class, in particular. And of the groups that were investing in the space, sustainability was not a prime focus for them. So, we wanted to do both of those things, and I think that's very possible. When we first started the fund, it was early in the days of impact funds. I think a lot of people thought, well, this is sort of grant making with for-profit dollars, and there's a whole crop of us at that point that said, no, that's not what this is. You can have both, making a return and generating sustainable outcomes.

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**Hillary:** A healthy food system is essential for our survival, yet agriculture is also the fourth-largest greenhouse gas emitting sector in the U.S., with over 90% of its emissions coming from crop fertilization and livestock operations.

**But there is momentum for change. For example, the Innovation Center for U.S. Dairy joined six national dairy organizations in pledging greenhouse gas neutrality by 2050. And around the country, farmers are partnering with scientists to implement more sustainable practices.**

**Catherine:** We cannot continue to produce the same ways we have been doing for the past a hundred years because it is not sustainable in essence. It's affecting too much of our environment, and it's also the economics of the farm is becoming more and more difficult. And sustainable farming is essential.

**Hillary: Catherine Feuillet is the Chief Scientific Officer at Inari. It's a company in Acre Venture Partner's portfolio that combines AI and gene-editing to develop crops that increase yields without the need for more land, water, or other inputs.**

**Catherine:** Sustainability is not about the planet only. It's three parts. It's the capacity to feed people, the capacity to increase the production without affecting the planet and even reducing the footprint of a production on the planet, and the capacity for the farming community to make a living.

**Hillary: So how can those three points of sustainability be met? Inari scientists are starting with plant genetics.**

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**Hillary: For over 10,000 years, plant breeders have been improving our crops by selecting and crossing plants with the most desirable traits for things like nutrition and flavor. But this process is slow. It takes many tries, over years to test and grow new plant varieties. And even when breeders successfully grew what they intended to, it was rare to know exactly what change produced the specific crop improvement.**

**Catherine:** So early in my career, when I started as a postdoc, I was naïve, and it was good because I thought I can, isolate a gene from wheat, that is helping wheat to resist against diseases. 25 years ago, I got the idea, I will isolate this one of the gene for leaf rust resistance. It took me 10 years for one gene.

**Hillary: Identifying the gene resistant to a specific disease was especially challenging because the wheat genome is huge.**

**Catherine:** There are 120,000 genes in wheat, so it was not efficient to do that.

**Hillary:** That's six times more than the roughly 20,000 genes in humans. And to add to the challenge, unlike the human genome, the wheat genome had not been sequenced. But Catherine wanted to change that.

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**Hillary:** In 2005, she co-founded the International Wheat Genome Sequencing Consortium. It's a group of scientists from 19 countries, all with the goal of mapping the wheat genome. In 2008, her team published the first map of the largest wheat chromosome. A decade later, they published a detailed description of the entire bread wheat genome, cracking the wheat code for the first time in history.

**Catherine:** That was the biggest achievement of my academic career. It made a ton of impact.

**Hillary:** Sequencing the wheat genome was a big deal because wheat is one of the most important crops for food security. It provides a fifth of the world's calories and protein, and it's also grown on more land than nearly any other crop. So, with the full genome mapped, for the first time, breeders had the tools to identify genes that affect traits like yield, grain quality, resistance to fungal diseases, and tolerance to environmental stress. That meant they could breed hardier wheat varieties with those specific genes, and that revolutionized what was once a labor and time intensive process.

**Catherine:** What the plant biologists have been doing by necessity, in the past decades, is making biology linear. We're trying to make a simple relationship between a gene and a phenotype. And it's not the reality of plant biology.

**Hillary:** To compare it to human biology, some human diseases are being cured with single-gene edits, like sickle cell disease. But Catherine explains that plant genomics are much more complicated.

**Catherine:** With plants, you have a very strong interaction between the genetics and the environment. It's way more than in humans, this interaction. So, it adds to the complexity.

**Hillary:** Before the technological breakthroughs of the past 15 years, scientists had to characterize genes one at a time. And considering that the wheat genome is made up of 120,000 genes, that's years and years of tedious work. But recently, that's changed.

**Catherine:** Before we had the capability of AI, we could not articulate and approach this complexity as a whole system. And now for the first time, I think in the history of biology, we can. And to me, that is one of the most revolutionary things that we can do with AI.

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**Hillary:** Back at the Nelson Farm, it's a beautiful, cool, and sunny fall day. It's the time of year when the corn crop is supposed to be plump and ready for harvest. But the fields Richard Nelson showed me look brown and dried out, like Halloween decorations., and this was partly due to a drought in August.

**Richard:** You know, so here's an ear exactly showing you, you know, drought affected, kernels are loose... junk.

So, there was a lot of nutritional value on these stocks out here. And this was really heavy, a really good crop.

**Hillary:** Over the summer, the Northeast Kingdom of Vermont experienced one of the worst droughts the Nelsons have ever seen. Richard says it only rained three tenths of an inch in August — the average is closer to 5 inches —making it Vermont's driest summer on record. And this comes after two summers in a row of severe flooding in 2023 and 2024.

**This year, the lack of rain disrupted pollination, so the plants never reached maturity, resulting in smaller ears of corn. Then in September, the weekend right before my visit, the region was hit with an early frost.**

**Richard:** When you get a frost that's hard enough to get down to the ear leaf, the plant is done. So, the ear does not develop anymore. It will dry down more. But if it hit early enough, the kernels will be loose in the cob instead of full because they didn't pack in enough starch, which is the reason you grow corn, and so you want that plant to be full. And the kernels to be full in that cob, full of starch, which is energy for the cow.

**Hillary:** And you said you, you chopped this early?

**Richard:** We chopped this Monday, after the frost. It was dead. If it wasn't, we wouldn't have taken it quite yet.

**Hillary:** The Nelsons use the entire corn plant as feed for their cows. The stalk, the leaves, and the cob all get processed down for easy digestion. A good harvest season means the farm is able to grow all their own feed, but with the combination of this year's drought and frost, that won't be possible.

**And so what's the impact then on this harvest?**

**Richard:** There'll be less starch, less energy. So, we'll have to purchase off farm energy sources to augment the feed. We're gonna drive production 'cause that's how you pay the bills. But what it means is half a million dollars in expenses that we didn't need to have because we got frosted, really eight days, nine days early. That field should still be green. Most years it is at this time.

**Hillary:** Corn has been bred to maximize its yield on farms around the world, but as the climate changes, so does the best mix of traits for high-yield crops. And the varieties that are successful today, may not be the varieties that are successful in the future. New climate needs new crops, and that's exactly where Inari puts their focus.

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**Hillary:** Since the company's founding in 2016, Inari has looked at the seed itself as a driver for sustainable solutions, developing technology that alters seed DNA to improve performance.

**Catherine:** When Inari contacted me and said, Catherine, would you be interested? You know, we are building this company, and our objective is using editing to transform plant breeding. And I say, Oh, these guys want to do exactly what I think should be done. So, I said, okay, I'm in. Let's do it.

**Hillary:** Catherine joined Inari in 2018 after five years at Bayer Crop Science as the Head of Trait Research.

**Catherine:** The whole mission of Inari is feeding people, having less impact on the planet, so more yield with less use of resources and for the benefit of the communities that are farming and at the end, for the public and everyone.

**Hillary: Global food security depends on just six crops. Inari focuses on the three most impactful—wheat, corn, and soybeans—which together cover more than 500 million acres across the Americas alone. The other three crops are rice, potatoes, and sugarcane.**

**Catherine:** Wheat is using the highest amount of fungicide of any other crop per surface, and we need to find a better solution. Corn, there is a lot of nitrogen that is used to bring corn, so this is a source of pollution as well for the water. And soybean is improved mostly by increasing the land that is used to grow soybean to meet the demand. That's also not a sustainable solution. So, we say if we can make a difference in these three crops, this is where we will have the biggest impact. So, let's go for it.

**Hillary: Today, Inari leverages AI's ability to synthesize vast amounts of research, recognize patterns, and rapidly process large datasets in a way humans cannot. Their aim is to increase yields in corn, soybeans, and wheat by up to 20 times the industry average.**

**Catherine:** 20% more yield increase, in 1/3 of the time for 1/10 of the cost. So, we purposely push the envelope. Even for our scientists sometimes it's too much. They say Catherine, what are you talking about? It is very complicated to do. I say, absolutely, that's the reason why we are gonna do it because it needs to be done. And by putting the bar very high, we're pushing the innovation as well.

**Hillary: Inari's innovation is their SEEDesign Platform. It's a technology that brings together AI powered predictive design and multi-gene editing to modify plant DNA more precisely. And it does this with fewer resources and more quickly than traditional plant breeding methods.**

**Catherine:** The seed design platform has two main components. So, one of them is the capacity to do multiplex editing. So not only several genes at the same time, but several type of modification at the same time because in some cases I want to suppress the expression of a gene, but in other cases I want to increase the expression of another gene. And I should be able to do these things at the same time in one experiment. That sounds trivial, but this is absolutely not trivial to do that efficiently.

**Hillary: Multiplex gene editing uses CRISPR technology, which acts like molecular scissors to precisely cut and modify genes that already exist in the genome.**

**Catherine:** So, we send the scissor with what we call the “guide”. So, it's like a little GPS that tells the scissor, go there, and cut here.

**Hillary: That cut creates the modification.**

**Catherine:** I let the machinery of the system repair cut, and it creates, for example, a gap in the gene, and the gene doesn't work anymore. That's one edit. But when we look at yield or resistance to drought, there is not a single gene that is affecting yield. There are hundreds of genes that are affecting yield. With multiplex editing, we say, okay, if you take these ten genes, and then for each of the genes, we have an hypothesis of which kind of modification we want to do, we modify these ten genes at the same time with different type of modifications. So, within a generation we get all the modifications. And when we can do that, and we find the right combination of genes and how we should edit them, then we can reproduce it.

**Hillary: Multi-gene editing means that process that once took Catherine ten years using traditional plant breeding techniques, can now be done in half that time.**

**Catherine:** That's the beauty of it. We have understood it. We have designed it, and we can reproduce it in hundreds of varieties, and we save a ton of time by doing that.

**Hillary: Then there's the second part of the SEEDesign Platform.**

**Catherine:** The most important part is what we call the “predictive design.” It's the ability to say which gene should we pick and how we should do the modification on each gene. And how the combination will give us what we expect - that is about planned biology. That's the most complicated question to address, but to me, it's clear since the beginning, that the company that addresses that is the company that will transform plant breeding.

**Hillary: Take Inari's goal of increasing yield by 20% in soybeans. According to a white paper published in 2023, Inari says their researchers used AI-powered predictive design to identify more than 50 new yield-related gene candidates for soybeans within just a year.**

**6 months later, the platform, which is continuously learning, identified 600 more. So, even if only half of these genes were confirmed to impact yield, this means AI helped increase knowledge of soybean yield drivers more than six-fold in only 18 months.**

**Catherine:** So, you can now make more sense of this data using AI. You can use all this information to then edit plants and improve the performance of the plants.

**Hillary:** **Predictive design uses deep learning and machine learning to create blueprints that guide Inari's plant scientists to determine which gene edits will be the most effective. This all happens through computer modeling, or "in silico".**

**Catherine:** The models can help us to predict and simulate - if I do this modification, I will change the expression this way. I told you I was working on one gene for 10 years, and it was a simple gene because it was one gene that affected disease resistance. It's the simplest model in biology that you can have. And now I'm working with my teams. It's like, no, we're gonna do combination and gene networks, and we're going to predict for every gene if we do this kind of edit. It's gonna change the gene expression, and I don't need to go to the lab anymore. It's like, oh, oh, oh, excuse me. This is amazing.

**Hillary:** **Predictive design modeling filters for only the most promising gene combinations, and that reduces the number of candidates that advance to biological testing. This approach saves time and resources by eliminating options early that would likely fail in later stages when tested in "wet lab" conditions. Candidates that do well, determine the combinations of gene edits that Inari's product team will use to design seeds for testing in greenhouse and field trials.**

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**Hillary:** **Right now, Catherine says soybeans designed using Inari's technology are actually growing on a farm in Indiana. And as part of the Research and Development phase, Catherine gets to see their progress along with Inari's Chief Product Officer, Claudia Nari.**

**Catherine:** When I walk the fields with Claudia Nari, which I always call my better half because she's the "D" in R&D. So, we go together, visit the the field. Then I see, you know, the designs that we have provided to them like two years ago, they're growing there. And then she explains to me because she's one of the best soybean breeders in the world, she said, Catherine, I've never seen something like that before. And she shows me and made us say, well this is cool because this is what we were incubating two years ago, you know, in our predictive design. So that's super exciting.

**Hillary:** **But at the same time, Catherine explains not everything is a success, and that too is part of the learning process.**

**Catherine:** We have a lot of options. We test a lot of options, and then we pick every year something new that is giving us performance that none of us have seen before. So that's why I'm always looking forward to go and see in reality how it looks like, and even those that don't look good, I like them. Because they teach me something and say, oh, here we have maybe not done the right combination of changes, you know, maybe it was too much in this direction or not enough in this other one. So, we have product trials, but we have also research field trials where we learn, to prepare our edits.

**Hillary:** With the support of AI, Inari says their product can move toward commercialization about 2 to 5 years after the initial computer modeling. That's around a third of the time it takes for a traditionally bred product to come to market. So, in other words, more resilient seeds will reach farmers sooner, increasing yield, saving costs, and reducing environmental impact.

**Lucas:** So going back to the pile, it gets replenished every year, the 5.5 to 6.5 months...

**Hillary:** Again, Lucas Mann from Acre Venture Partners.

**Lucas:** And the pile has mostly kept pace with demand, and in many ways, that's the food system. Technology, by and large, has enabled the pile to do so. And yield is the single and simple best indicator of health and success of that system. So along comes Inari, and this was my first introduction to the company, was the idea that they can substantially change the economics of growing a ton of corn in such a way that we can grow more of it on a single acre, using substantially less fertilizer or water or other materials.

**Hillary:** In 2018, Acre Venture Partners became one of Inari's first investors, they helped the company complete a \$40 million Series B financing round, for a total \$55 million.

**Lucas:** All things being equal, they could take the number of acres being farmed down, improve the economics of growing it, and improve their toxicological footprint. There's that much leverage on these technologies. We can make the plant much more responsive to the current conditions of water and fertilizer than it has been, through genetic reordering. That, for me, is a fundamental shift in Ag Tech.

**Hillary:** By January of this year, Inari had fundraised \$144 million in their Series G round, bringing its total funding to \$720 million, fueled by the performance of their first-generation products and progress toward commercialization.

**But early on, what made Inari stand out for investors like Acre wasn't just the promise of their technology for sustainability. Acre was also confident in its leaders like Catherine, who have the experience to back Inari's bold vision.**

**Lucas:** She's a huge part of the reason we decided to invest in Inari. But she also has this unbelievable scientific advisory board at Inari, and it includes as distinguished people as Jennifer Doudna, who won the Nobel Prize for discovering CRISP. And Catherine's ability to interface with people like that - interface with growers and producers, interface with investors - she's really one of one. And I think the reason is her knowledge is so deep, her innovation is so deep, and her intention is so true. It's such a rare combination.

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**Hillary: Catherine explains that Inari partners with independent seed producers who use Inari's technology for their own seeds. The idea is that they will then take those seeds and sell them to farmers. So, Inari does not create their own proprietary seeds.**

**Catherine:** There will never be an Inari brand and Inari seeds. We're not going to go and sell our seeds to farmers directly. We're going to use the people that know very well how to do that. The guys that you are used to deal with in your farm, you know that have been doing that with your parents and your grandparents probably for generations, and they know very well their business, and we decided to be providers to them. So, we are in the parental seed business, in a way. We do the edits, we increase the performance, and then we sell that to them. And then they put that into their breeding program, into their channels and to the farm.

**Hillary: From there, farmers like Richard Nelson work with their seed dealers to choose varieties with the traits best suited for their needs.**

**Richard:** We look at their latest greatest genetics, and we look at the site, you know, the studies done on 'em, and university trials done on 'em. We look at digestibility, tonnage, and yield in their traits. You match the seed to your ground and your conditions.

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**Hillary: Although Inari's current focus is on increasing yield and decreasing inputs like fertilizer and water, they really see this as a starting point in plant breeding innovation.**

**Catherine:** What we are doing is that we are building a platform that is reusable. So, all what we are doing, the investment in AI, you know, our capacity to do predictive design, the toolbox that we're putting in place, all what we learn will be reusable. What would be different is the data that we need to produce because this is more crop specific. Maybe the method to do the transformation of the plant because it's also more crop specific. But many of what we put in place is a platform that can be reused for any crop.

**Hillary: A seed of the future is not just improving yield and cost; it's also one that can withstand environmental challenges.**

**Catherine:** I have been thinking a lot about the concept of "robustness". It's like yes, higher yield, but the capacity to be more resilient. We cannot act on the climate if suddenly it rains when it should not, and suddenly it's too dry when it should not. Well, the plan should be able to recuperate from that, otherwise we lose the yield. So, I think for me it's like— that and the diseases as well. You know, because diseases evolve very rapidly, and we have not been able to really bring new varieties with the right combination of genes for fighting the diseases that are evolving very fast. So, there is an element of speed, I think, that I would like to see.

**Richard:** So, let's talk about alfalfa. Alfalfa is the holy grail of cattle forage, but it has this long tap root that goes 30 feet into the ground. And the reason we don't grow alfalfa in this part of the world is we have those freeze thaws in the wintertime, and it pops a crown and kills the crop. How about if we could genetically modify an alfalfa plant, so it had a root like quack grass that just shot out into the ground and wanted to live through any weather conditions, but have the protein, and the yield of a really good alfalfa. That would be something. That really would be something.

**Hillary: But the reality of designing new varieties and bringing them to market isn't a simple or straightforward process, no matter how urgent the need.**

**Lucas:** It's slow to get regulatory approval. It takes a lot of time and money for startups to get to a point where they've demonstrated enough efficacy that you can get into a field. And that's a real limiter for startups. And I think ultimately, that's why the startup ecosystem is at a real inflection point, as relates to AgTech.

**Hillary: That inflection point is marked by the rapid evolution of AI. And specifically, how it can be applied to plant biology.**

**Lucas:** Now, agriculture is probably the first industry, and in many ways it's timeless and recession proof because it's absolutely essential in every way. And so how do we, over time, ensure that it can support a venture style investment? I think the emergence of new technologies that allow us to get things into the field more quickly. But the focus for these natural systems, these physical systems, has to be the people that are either doing the work or consuming the product. That's just become more clear to me every year.

**Hillary: And though the speed at which AI is developing has advantages, there are concerns that AI is moving too quickly and on a path to replace human input. But scientists like Catherine don't see it that way.**

**Catherine:** I can see the concern of people, you know, about AI being everywhere in our daily life, in taking decisions. But in science, I see AI as a new colleague. I will have a new AI colleague in the room that will help me to be smarter and give me new hypothesis. And the decisions should still be us to decide what we want to do, right? But, suddenly, I have more people in the room to help me do the right thing and be faster. And because we don't really have time. It's not the moment for complacency and saying, oh, we did it before it worked. I don't have anything new to learn. No, I mean, I'm a molecular biologist by training. I was not built and born with AI at all, I find it an exciting opportunity to continue to learn and do better.

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**Hillary: Agriculture faces some of the most severe climate impacts of any sector globally. But it's also one of humanity's most enduring industries because of its ability to transform under pressure.**

**Now it's about trusting the science, listening to farmers, and investing in the right tools for a viable future to feed the world.**

**Lucas:** Farmers are promised lots of things. They understand technology, they're sophisticated, they're stewards of the land, and so when I look at a technology like Inari, adoption is a big deal.

At the end of the day, all we're trying to do is improve the economics for a farmer on a per acre basis. And if you can do that, you can start to talk to them about what's being grown, how it's being grown, and you can do that from a place of trust and a place of understanding and partnership, not a place of coming in and saying, oh, well we believe this, and this is how you have to do it. Come with respect for what this industry is, where it's come from, how far it's gone. It's remarkable.

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**Hillary:** What do you think about when you look out at this, and you just contemplate the time and energy and resources that went into this crop that is now not what you hoped it would be? And what happened to it is something that's 100% out of your control.

**Richard:** How lucky am I to get to come out here and stand on and look at that crop and yeah, it didn't go quite as planned this year but can't wait till next year. If you can't be an optimist, don't be a farmer.

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**Hillary:** If you want to learn more, please visit us at [cambridgeassociates.com/unseenupside](https://cambridgeassociates.com/unseenupside) or check out the show notes. If you like what you're hearing, leave us a review and tell your friends and colleagues.

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