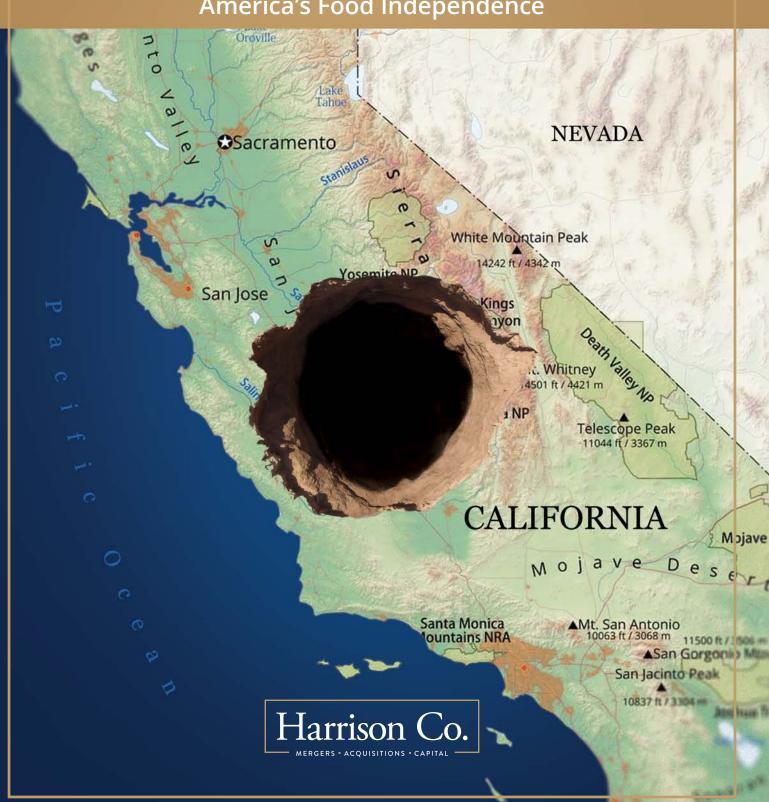
California's Forgotten Farmers

Spring 2021

A 100-Mile Circle Fighting to Preserve America's Food Independence



The area within the 100 Mile Circle represents less than 1% of the total landmass in the U.S. Yet, it produces 60% of the country's fruits and nuts and over 30% of its vegetables.





If the point of a compass <u>was</u> centered on Fresno, California, and a 100-mile radius was drawn, the circle formed would reach across the most vital and productive growing region in the world. Although this 100 Mile Circle covers less than 1% of the total land mass of the U.S., it produces nearly one-half of its fresh fruits, vegetables and nuts – more than 250 different crops rich in the vitamins and nutrients essential to human survival.

Yet, this incredible resource is in serious jeopardy, though not from drought or climate change as one might expect. On the contrary, the region's farmers are some of the most innovative in the world, continuing to improve the way they grow food, from creating new heat-tolerant varieties to incorporating precision irrigation and moisture sensing technology. No, the biggest threat to the 100 Mile Circle is indifference which has led to insufficient infrastructure spending, onerous regulations and an overall lack of understanding the critical role food production plays in our nation's security and global economic position.

While the COVID-19 induced quarantines brought much needed attention to the importance of a safe and reliable food supply, the pandemic also revealed how easily the supply chain can be broken and the urgent need to address these issues before the next disruptive event.

Preserving

Our Food Security

The 100 Mile Circle is home to a Mediterranean climate and the world's largest supply of Class 1 soil – a type of soil capable of growing nearly any crop. This small region, perfected by nature, easily surpasses all other U.S. locations in food production per square mile. Sixty percent of the country's fruits and nuts, and more than 30% of its vegetables, are grown in the 100 Mile Circle.

Although most of the region's produce is consumed domestically, the 100 Mile Circle exports more than \$14 billion in agricultural products every year.

Its soil and climate are so ideal for growing fruits and vegetables that if the region was designated as a country, it would be the 11th largest producer of non-cereal grain crops in the world. (1)

^{1 &}quot;FAO Value of Agricultural Production," Knoema (Numbers are for crop production without livestock or animal products. Cereal grains include corn, rice, soybeans and wheat.), accessed May 5, 2020.

Why is protecting the 100 Mile Circle so important?

For three primary reasons:

- 1 Agriculture is the only U.S. sector that has posted a trade surplus for well over 50 years. (2)
- 2 As diets evolve and the global population continues to expand, our position as the world's largest food exporter will play an increasingly significant role in the global economy.
- (3) Maintaining food independence is more than just providing a healthy, transparent food supply. It is also a matter of national security.

In fact, keeping the U.S. food supply safe is so critical to the country's national security and well-being that it is governed by the Department of Homeland Security.

2 Daigle, Brian, "U.S. Trade by Industry Sector and Selected Trading Partners," United States International Trade Commission, accessed April 15, 2020. We believe there is no other region in the world, other than perhaps those rich in oil reserves, with the same strategic and economic value to the U.S. as the 100 Mile Circle.

 Bill Harrison, Managing Partner, Harrison Co.

However, there are Californians who believe large-scale agriculture is detrimental to the state for environmental reasons, preferring to outsource food production to other countries. This position is not only harmful to the economic vitality of the 100 Mile Circle, but it also places the long-term security of the country's food supply at risk.

The purpose of this report is twofold:

FIRST to highlight the critical role this forgotten region plays in the country's food supply.

SECOND to challenge U.S. legislators to implement the changes necessary to preserve America's food independence.



Impact of

Legislative Indifference

Despite the state's dominance as a global leader in ag production, 95% of Californians live in urban areas, including many who have relocated from outside the state. Most are unaware of how critical the 100 Mile Circle is to the food-supply chain. It seems that the only Apple many Californians care about is the one growing in Silicon Valley.

The result is a state legislature overwhelmingly influenced by an urban majority that benefits from easy access to an abundance of fresh foods, and yet is detached from, and largely unaware of, the labor and resources required to grow the fruits, vegetables and proteins that stock our grocery shelves.

Until the COVID-19 pandemic, most Californians – and most Americans – probably never imagined shuttered restaurants and depleted supermarkets. Even now, it is highly unlikely that consumers fully appreciate the sacrifices made by farmers and essential workers who continued to grow and harvest their crops while the rest of the country sheltered in place.

What has become abundantly clear is that a political, economic and societal infrastructure that lacks the necessary perspective into farmers' livelihood has led to a failure to completely understand the contributions they make and the importance of addressing the challenges they face every day.

To ensure a resilient food supply, California must solve two of the biggest threats to the 100 Mile Circle: The state's water problems and complying with a mounting list of regulatory requirements.



Water Infrastructure

The Sustainable Groundwater Management Act (SGMA), passed in 2014, places the burden on local farmers and other stakeholders to develop plans to reverse the effects that periodic drought coupled with continued growth has had on California's underground water basins.

Although farmers are implementing solutions to reduce demand through more efficient water use, research data clearly shows that without also increasing supply, water balance will never be achieved. When excess water is available, California is missing the opportunity to capture and store it simply because the water infrastructure system is broken.

Regulatory Overreach

Americans enjoy an abundant, diverse and overall affordable food supply, and regulations have no doubt made it one of the world's safest.⁽³⁾

However, regulations that are unnecessary, impractical and, in many cases, overreaching can be so disruptive that the ultimate outcome is a food supply that is less safe and less transparent.

Unlike other business owners who have fled California in recent years due to over-regulation, farmers do not have the option of moving their farmland to a more business-friendly state. Climate and soil conditions are exclusive to California's natural environment and simply cannot be replaced or replicated in other states. However, large producers of specialty crops are increasingly setting their sights beyond California and toward Central and South America.

In those regions, land, labor, water and regulatory costs are all far less expensive and less restrictive. Such an exodus would result in the U.S. regressing from being the world's most abundant food basket to a country dependent on imports to feed its population.

^{3 &}quot;Fast Facts About Agriculture and Food," American Farm Bureau Federation, accessed April 22, 2020.



Time to Act

At a time of unprecedented change, one certainty holds firm and true – our nation's most valuable natural resource must be preserved.

With the global population growing and demand for nutrient-rich, high-calorie diets accelerating, the world will need to double the amount of food it produces by 2050, while using less of everything – land, water and chemicals. Accomplishing a task this daunting requires near-constant innovation as well as capital to implement new ideas. It will also call for a widespread commitment to preserving the earth's natural resources, and advocating for and protecting those who tend to them every day.

Fortunately, 100 Mile Circle farmers remain incredibly productive despite ongoing challenges. Years of experience overcoming all types of adversity, from weather and pests to volatile political climates, have conditioned generations of farmers to continually adapt to changing and often uncertain circumstances.

As a result, farming operations in the 100 Mile Circle continue to generate positive returns for innovative growers, and for the time being, the region's fertile cropland remains among the most valuable and sought-after in the world.

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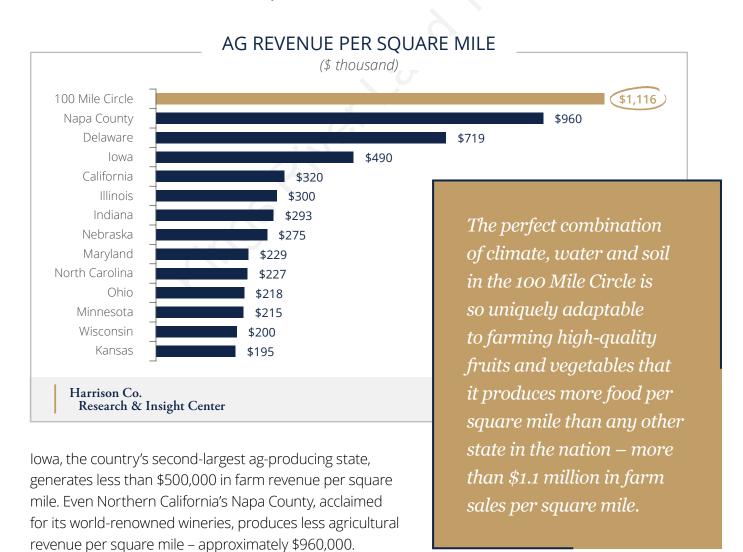
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America's Food Basket

From carrots, cauliflower, peppers and onions to avocados, almonds, walnuts and milk, California far surpasses every other state in producing the food that keeps Americans fed and healthy. While fields in Iowa, Kansas and other Midwestern states primarily produce corn and soybeans, most of which is either highly processed or used to feed livestock, the lion's share of ready-to-eat, nutritionally rich food grown in the U.S. comes from California.

More Food Per Square Mile

The 100 Mile Circle is the hub around which California's agricultural industry revolves, spanning a region from Modesto in the north to Bakersfield in the south and Salinas to the west. The area within the 100 Mile Circle, approximately one-third of which includes national parks and forests, represents less than 1% of the total landmass in the U. S. Yet, it produces 60% of the country's fruits and nuts and over 30% of its vegetables. The region stands as a striking example of how a relatively small area can make an extraordinary economic difference.





Deep Agricultural Roots

California's agricultural history dates back for centuries. In the 1700s, Franciscan monks were among the state's earliest farmers, planting the country's first pomegranates, olives, figs and grapes in the fertile soil surrounding their missions. These then-exotic crops helped build the state's agricultural bedrock and positioned the 100 Mile Circle as the global leader in food production.

Today, the 100 Mile Circle produces:



74% of the world's almond supply ⁽⁴⁾



More than 95% of all garlic and pistachios grown in the U.S.



18x more peaches than the "Peach State" of Georgia



More milk than the entire state of Wisconsin



100% of U.S. raisins (produced by 2,000 raisin growers within a 60-mile radius of Fresno)



Over 75% of nectarines, mandarins, table grapes, artichokes, kiwifruit and figs grown in the U.S.



10x more fresh oranges than Florida (Florida primarily grows oranges for processing)

California is also the leader in organic farming, with more than 2,700 certified organic farms representing approximately 1.1 million acres, or over 20% of all certified organic farmland in the U.S.

[&]quot;Making an Impact, Creating Value," Almond Board of California (80% of world's almonds supply comes from California) and Harrison Co. research (92.7% of California's almonds are grown in the 100 Mile Circle. 92.7% of 80% = 74%), accessed April 18, 2020.

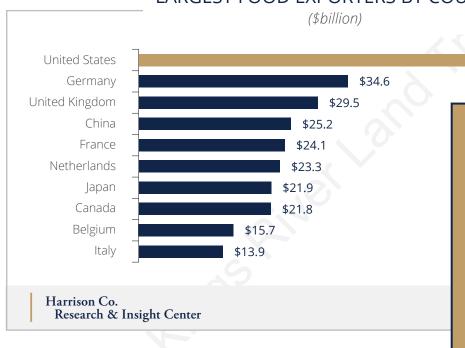
The Value of

Food Independence

The U.S. is the world's largest food exporter – sending tremendous amounts of plant and animal products across the globe – with farmers and ranchers exporting more than 20% of the products they grow and raise.

In 2018, agricultural domestic exports (5) reached nearly \$145 billion. (6) These exports include \$72.7 billion in food agricultural products, with the remainder being non-food agricultural products, such as cotton, feed grains and tobacco.

LARGEST FOOD EXPORTERS BY COUNTRY



exported more than \$20 billion in agricultural products, or approximately 30% of its ag production, illustrating the state's role as a key contributor to the global economy. Even more notable. agriculture is the only U.S. sector that has posted a trade surplus for more than 50 years.

In 2017, California

- USDA defines agriculture to include: live animals, meat, and products of livestock, poultry, and dairy and products; hides and skins (but not leather products); animal fats and greases; food and feed grains and grain products; oilseeds and oilseed products; fruits, nuts, and vegetables and products of these; juices, wine, and malt beverages (not distilled spirits); essential oils; planting seeds; raw cotton, wool, and other fibers (not manufactured products of these); unmanufactured tobacco (not manufactured tobacco products); sugar and sugar products; coffee, cocoa, tea, and products of these; rubber and allied products; and stock for nurseries and greenhouses, spices, and crude or natural drugs. Fish, shellfish, and forestry products are not included in "agriculture."
- 6 "Fact Sheet on 2019 National Trade Estimate: Fighting to Open Foreign Markets to American Agriculture," Office of the United States Trade Representative, accessed May 6, 2020.



Why is this position as the leading food-exporter role significant?

- 1 Agriculture products provide the U.S. with trade leverage.
- 2 Feeding a growing population will be the most important global challenge in the coming years.
- 3 A safe and reliable food supply is a matter of national security.

Trade Leverage

Despite political and virus-driven disruptions to trade, one certainty remains: the primary products China needs to purchase from the U.S. are food and feed.

China is ranked as the world's largest agricultural producer. However, considering the size of its population, its food supply could become dangerously limited, or exhausted in some regions, without U.S. imports. Although China and the U.S. are generally the same geographic size, the percentage of arable land – land capable of producing crops – is significantly smaller in China.

China claims approximately 7% of the world's arable land, though it needs to feed more than 1.4 billion people, equivalent to 20% of the world's population. Conversely, the U.S. boasts more than twice as much arable land, and has only 4% of the global population to feed.

Also, as incomes rise in China, so does the demand for healthier and more diverse diets. These new demands are further testing the limits of China's agriculture infrastructure, and driving more imports of 100 Mile Circle products, such as fresh fruits, vegetables, nuts, dairy and high-quality protein.

More Food Demand & Less Arable Land

The world's population is expected to climb by 2 billion over the next 30 years. The need to feed a growing population, combined with stronger consumer demand for healthier food options, will require double the amount of crops grown by 2050. (7)

Economic development and the changing dietary preferences that follow, especially in developing regions, are powering global shifts in food demand.

Compounding the challenge is the dramatic reduction of arable land. More than one-half of the global arable land per capita has been lost to urban encroachment, soil erosion and land degradation over the last 50 years. The opposing demands to produce more food on less arable land make feeding the world the single most important global challenge in the coming years.

⁷ Foley, Jonathan, "A Five-Step Plan to Feed the World," National Geographic Magazine, accessed May 4, 2020.

GLOBAL ARABLE LAND (Hectares per capita) North America 1.2 Africa 1.0 **Latin America** 0.8 **European Union** 0.6 World South Asia 0.4 **East Asia** 0.2 0.0 1966 1976 1981 1986 1991 1996 2001 2006 2011 Harrison Co. Research & Insight Center

Keeping U.S. Food Supply Safe

As the largest food exporter, the U.S. is positioned to lead the world in creating a solution for the global food-shortage challenge, which has become a close-to-home reality for people everywhere since the onset of the COVID-19 pandemic.

COVID-19 panic-buying amplified the importance of maintaining a robust food supply, and the perils of relying on other countries to meet demand.

As economies shut down around the world, consumers were not alone in hoarding food and other staples. Several countries immediately began to shut down exports of food and preserved their own supplies. For example, Russia, the world's largest wheat exporter, started limiting grain shipments during the first stages of the pandemic in early March with the proclamation that "given the current situation, the issue of food security is coming to the foreground."

Fortunately for most Americans, empty grocery-store shelves were a stark but temporary reminder of the critical importance of maintaining a safe and secure food supply. In fact, keeping the U.S. food supply secure is so critical to the country's well-being and national security that it is governed by the Department of Homeland Security:

"America's agriculture and food system is an extensive, open, interconnected, diverse and complex structure providing potential targets for terrorist attacks. We should provide the best protection possible against a successful attack on the United States agriculture and food system, which could have catastrophic health and economic effects."

- Homeland Security Presidential Directive

The Homeland Security Presidential Directive 9 recognizes that a major disruption in the U.S. food supply would have devastating social and economic consequences. As a result, the directive established a national policy in 2004 to defend the food and agriculture system against terrorist attacks, major disasters and other emergency situations.



Greatest

Challenges from Within

All Americans, whether from urban, suburban or rural communities and across all demographics, rely on and benefit from the U.S. food supply.

However, the 100 Mile Circle – the lifeblood of the country's food supply – is facing serious and long-term challenges, chief among which are achieving an accessible water supply and a balanced regulatory environment.

Water Allocation

How is it possible that California, a state so heavily dependent on snow-pack to provide water to farmers and urbanites alike, has not built a new reservoir since the 1970s?

Water supply is arguably the most contentious and complicated issue facing California, with recent droughts exposing serious shortfalls in the state's aging water-supply system. (8)

Between 1935 and 1960, state and federal agencies constructed a series of dams, reservoirs, canals and pipelines designed to collect and move water from areas with higher rainfall in Northern California to a growing population in Los Angeles as well as the fertile farms in the 100 Mile Circle.

The last reservoir built in California was the New Melones Dam, completed in 1976. The population of California at that time was approximately 20 million. Since then, the population has doubled to over 40 million. Rather than investing in new water-storage systems to help mitigate occasional droughts and better meet California's increasing water demands, the state allows billions of gallons of freshwater to flow into the Pacific Ocean.

The lack of new infrastructure is primarily driven by environmental groups that object to building new dams and diverting water from natural waterways. These politically powerful organizations believe protecting wildlife habitats is more important than protecting a high-quality, sustainable food supply.

Environmental groups, and certain politicians who cater to them, fail to recognize that farming not only provides revenue and much-needed jobs to California's rural communities, but is also an essential contributor to California's ecosystem. For example, fruit and nut trees capture and store a significant amount of carbon both above and below the soil's surface, and row crops, especially rice and alfalfa fields, provide nesting and foraging habitats for several species of birds.

8 To learn more about California's water systems, go to California Farm Water Coalition

Excessive Regulation

How is it possible that the 100 Mile Circle is often maligned, targeted politically and regulated to the point where growing food in the region has become increasingly challenging?

California farmers face a near onslaught of environmental and economic stresses, ranging from ongoing drought and climate change to labor shortages and uncertain trade policies. It is against this backdrop that they are also facing mounting regulatory pressure, and in some cases are specifically targeted by some state lawmakers.

For example, in 2015, California enacted AB 1513, a statute concerning piece-rate compensation. The law created a "safe harbor" that provided employers with a grace period to pay back-wages. However, three large ag companies, Delano Farms, Gerawan Farming and Fowler Packing, were excluded from this provision.

Amid litigation, the state of California acknowledged that the carve-out provision was an unprecedented targeting of specific companies, violated the Equal Protection Clause of the Fourteenth Amendment and was only included to appease the United Farm Workers (UFW).

Impact of Regulation Imbalance

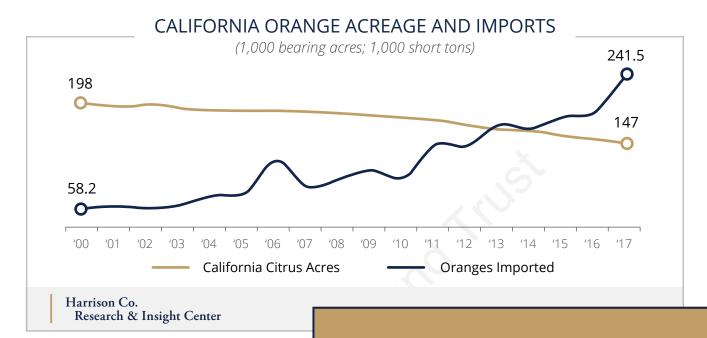
A recent Cal Poly study found that the agriculture industry in California is more strictly regulated than in any other state.

For example, California's registration process for pesticides is more stringent than the federal standard followed in the other 49 states. Phasing out beneficial crop-protection tools without viable alternatives (9) is escalating the problem.

The study also reveals that the regulatory burden for California farmers has far surpassed production-cost increases. For instance, production costs for commercial lettuce growers in the 100 Mile Circle's Salinas Valley have increased by 24.8% from 2006 to 2017. However, regulatory-compliance costs have skyrocketed by an astronomical 795% during the same period. (10)



A study performed by the University of California Riverside, School of Public Policy found that future compliance with new regulations is estimated to increase production costs by \$203 million, or \$701 per acre per year for citrus growers. Since 2000, the state has lost 26% of its citrus orchards as increased regulations, and their accompanying costs and reporting requirements, make growing oranges more complex and expensive. What has followed is a greater reliance on oranges imported from other countries, increasing fourfold from 58,000 tons to more than 240,000 tons during the same period. (11)



Complying with labor and tax laws, environmental mandates, business-licensing and insurance requirements, and safety regulations is intended to provide consumers with a safe and sustainable food supply. However, disproportionate cost increases thrust upon California's agriculture industry have the potential to deliver the opposite effect by undermining the country's position as the world leader in food production.

If 100 Mile Circle farmers continue to be overburdened with unnecessary, impractical and costly regulations, the most likely outcome will be fewer food products grown in the U.S. and more dependence on imports from other countries. These imports are not only less regulated and less sustainable, but vulnerable to border closures and other disruptions.

⁹ Jacobsen, Ryan, Fresno County Farm Bureau, accessed May 2, 2020.

¹⁰ Hamilton, Lynn and McCullough, Michael, "A Decade of Change: A Case Study of Regulatory Compliance Costs in the Produce Industry," Cal Poly, San Luis Obispo, accessed April 20, 2020.

^{11 &}quot;U.S. Orange Imports and Domestic Exports from 1999 to 2017," Statista, (Although Florida and California are both known for oranges, 90% of fresh oranges grown in U.S. come from California. Florida primarily grows citrus for processing into juice.), accessed May 8, 2020.

A Look Back,

A Look Ahead



Hardship is nothing new to farmers in the 100 Mile Circle. They have long endured booms and busts, droughts and floods, hailstorms and endless heatwaves, pest infestation, and political indifference. However, the hardships they have endured and overcome have bred a tenacity found in no other industry.

The 100 Mile Circle was built by immigrants from around the world who were drawn to the possibility that with their own hands and a few acres of dirt, they could create a better life. Basque, Japanese, Armenian, Mexican, Italian, Indian and Hmong are only a few of the ethnic groups that have contributed to this richly diverse and growing region.

100 Mile Circle farmers have demonstrated a resourcefulness and fortitude that has allowed them to not only persevere but also continually improve, generation after generation. From creating new varieties suited to a hotter, drier future to launching robotics in the field, innovative farmers are taking steps to ensure that the 100 Mile Circle remains productive for years to come.

The 100 Mile Circle is arguably the country's greatest natural resource. Whether it continues as a dominant force in the U.S. food supply depends, at least in part, on the ability to effect change in a state that has so far dismissed or ignored the region.

Tipping Point for Food Supply System

As food requirements grow, 100 Mile Circle farmers will need to produce more with less. Consolidation will continue as cropproduction demands will require significant capital, innovative leadership and continued technology advancement. Also required are reasonable regulations that support farmers, increased water-storage capacity, investment in rural communities and solutions for immigration issues.

Above all, a thriving 100 Mile Circle calls for private industry, public-sector agencies, academia and the people of California to recognize its critical role in providing a quality food supply, boosting California's economy and securing the country's role as the world's premier food basket.



About

Harrison Co.



We are an unapologetic advocate for family-owned businesses. We combine intense focus in the consumer industry with a consultative, data-driven approach, to provide private business owners with the advantage they need to make the best possible strategic, M&A, and financing decisions

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