Washington's top varieties
Better orchards bring better crop mix
Washington goes high tech
WASHINGTON APPLE SIZES

Apples are sized according to the approximate number of apples that can be contained in a standard box (19 kilos).

The difference in dimension between sizes is approximately 3 millimeters.

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The scale illustrates the most popular sizes. Actual size may vary depending on apple variety and shape.
‘Nothing but fruit’: better apple orchards spell better crop mix for Washington

From planting to packing, Washington goes high tech

Washington’s top varieties

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Marketing snapshot: From Washington orchards to the world

Washington State Commercial Varieties

Grower focus: Robison Orchards Inc.

Washington food safety practices provide clarity and consistency

From planting to packing, Washington goes high tech

Shipper profiles

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ISE are specialized produce industry publications. Distribution is in English, Spanish and Mandarin, reaching the whole supply chain from growers to retailers, exporters to distributors, and all service companies linked to the sector.
It’s another exciting season for Washington State apples as we anticipate excellent quality, improved varietal diversification and record quantities. Ideal weather conditions in winter, spring and summer have provided optimum conditions for a large volume of high quality apples destined to over 60 international destinations. Be ready, because here they come!

It’s truly amazing just how many different varieties Washington State produces today versus a few short years ago. From our flagship variety Red Delicious, to Honeycrisp, Gala, Cripps Pink, Fuji, Braeburn, Cameo and an entire array of new club varieties – Washington truly has ‘a taste and texture’ for everyone. And let’s not forget about the new CosmicCrsp, which will be available in the next few years.

Those of us in Washington know 2014 will be a record crop volume approaching 155 million fresh bushels. This increase is a testament to the growers who have aligned consumer wants and needs with production of high quality apples. Stable production of Red Delicious, Golden Delicious and Granny Smith support the increases in Gala (#2), Fuji (#3), Honeycrisp (#6) and Cripps Pink (#7) in Washington’s total production. As Red Delicious continues to be our #1 variety,
Washington has excellent supplies of almost anything you can ask for. This varietal diversification will continue to lead Washington’s success as the supplier of ‘The Best Flavors on Earth’.

The Washington Apple Commission staff, as well as our thirteen representatives worldwide, are poised to support promotional activities in 26 markets. 2014 will be a tremendous opportunity for all to participate in enjoying ‘The Best Apples on Earth’.

Looking forward to another banner year from Washington State apples!

Todd M Fryhover
President of the Washington Apple Commission
‘Nothing but fruit’: better apple orchards spell better crop mix for Washington

Washington State’s record crop estimate of 155 million bushels has come as no coincidence this season. Investment in better, more productive orchards has meant greater efficiency and greater quality.
Along the Columbia River and throughout the fertile Columbia Basin, Washington State boasts what local producers describe as the perfect microclimate for apple orchards. Clean and abundant water complements highly productive volcanic soils and a dry climate to create ideal growing conditions.

Record volume for the 2014 harvest cannot be attributed to naturally favorable conditions alone, however. Over the past 15 years, Washington State orchards have also benefitted from extensive renovations that have made growing areas more productive than ever, explained Todd Fryhover, president of the Washington Apple Commission.

"The industry has expended tremendous financial resources in the orchards and at the packing and storage levels. These last few years, we’ve seen a rejuvenation of the industry through improved technology at every level," Fryhover said.

Evidence of this transformation is readily seen on the orchard level. Acres that once held 300 trees now house upwards of 1,500.

"There are trees that are sometimes as close as 18 inches. The trees are poised to grow on a V trellis and it’s a fruiting platform. You look down those particular orchard rows and you see nothing but fruit," Fryhover said.

The push for better, more productive orchards has meant a more diverse crop mix to fit evolving consumer demands, explained Jon Alegria, president of CPC International Apple Company.

"What’s different today than say 15 years ago is that we have all invested in the latest and greatest plantings, which means we have more high colored and desirable fruits like Galas, Fujis and Honeycrisp - a very popular apple and probably the most demanded I’ve seen in my lifetime," Alegria said.

"The newer plantings definitely produce more per acre but they also allow us to grow better quality fruit and more uniform quality of fruit, whether that be from a size perspective or a color perspective. We’re able to get in and out of those orchards faster, thus maximizing fruit quality."

For an industry dependent on the work of human hands, Fryhover said speed in the orchard spells benefits across the supply chain.

"The new plantings bring opportunity for labor efficiency – fruiting walls, reduced height in plantings providing workers with more efficiencies – and we need these efficiencies as labor remains our number one issue," he said.

GREATER VOLUME AHEAD FOR INTERNATIONAL BUYERS

Many new, high-density orchards planted over the past five to seven years reached full productivity this season, contributing to Washington’s outstanding crop estimate of 155 million bushels. With growers aggressively planting better orchards, this season’s estimate may be just the beginning.

"The 2014 Washington apple crop is an indication of future Washington apple volumes. But focus should be on the varietal mix, not necessarily the quantity produced. We have more Gala, Fuji, Cripps Pink and Honeycrisp – all increasing in demand both in the US and export markets," Fryhover said.

To source such tremendous volume, the industry will be taking on greater promotional efforts in the U.S. and 25 international markets through programs sponsored by the Washington Apple Commission.

Although U.S. consumers have demonstrated greater interest in apples – particularly in new club varieties – Washington will be working closely with international partners to find the right place for its fruit.

Through specialized, regional programs, Fryhover said Washington is ready to take on the task.

When asked what makes Washington prepared to take on the global marketplace, Fryhover pointed to the state’s proven reputation.

"Washington provides consistent, uniform, quality apples arrival after arrival. This provides buyer confidence. In addition, we can match almost any apple consumers need. Washington has it all," Fryhover said.
Marketing snapshot: From Washington orchards to the world

As Washington continues to produce bumper apple crops, the state will take on more extensive marketing efforts across 26 international markets. Although U.S. consumers show increasing interest in new apple varieties, the most significant sales efforts will need to take place in blossoming markets such as China, Southeast Asia and Latin America. From the Mothers Love program in Indonesia to unique flavor twists in Mexico, the Washington Apple Commission has crafted specialized, regional programs that appeal to consumers on their turf.

RETURNING TO MAINLAND MARKET IN CHINA

Throughout weekly merchandising visits and constant communication with plant health officials, Washington has made the Chinese market a top priority – and with good reason. Even with 3 million cartons reaching China and Hong Kong in a standard year, consumer interest continues to rise for Washington apples.

A diverse selection from Washington orchards translates into equally diverse possibilities for Chinese buyers, said Todd Fryhover, president of the Washington Apple Commission.

“This year, with our record crop, Chinese consumers will again have the opportunity to enjoy Washington apples, and our growers will have access to this important growth market,” Fryhover said.

In Hong Kong, Chinese marketing representative Philander Fan continues with uninterrupted promotions with the two largest retail chains, Wellcome and Park’n Shop.

With the support of plant health services, Washington will also be able to reignite promotions in the mainland market.

“It takes the coordinated effort of every industry organization at every level, working with the Foreign Agriculture Service [FAS], APHIS, U.S. Trade Representative and the embassies to move our issues forward. The Washington apple industry feels strongly about the long-term partnership in China,” Fryhover said.

“We look forward to equal opportunity, access for access.”

Northwest Fruit Exporters, with support from the Northwest Horticultural Council, has played a key role in facilitating the conversation to provide a standard methodology on warehouse practices to meet the requirements established by plant health officials.

These efforts will translate into better service and even safer food moving forward. As Chinese consumers demand greater quality, Washington has responded.

Mothers and children receive a major part of Kurnia’s marketing focus in Indonesia. Through the Mothers Love retail program, the Washington apple industry reaches out to this vital consumer.
group in Indonesia, as well as Malaysia, Vietnam and Thailand.

Using the reputation of Washington apples as safe, clean and environmentally friendly, the campaign focused on mothers providing only the best for their families. The bulk of the promotional events were held November 2013 through March 2014, with an extremely positive response from both consumers and traders.

Activities included specially designed point-of-sale material, display contests, consumer games and activities, in-store demonstrations and sampling, road shows and other market-specific activities.

**MEXICAN AND CENTRAL AMERICAN APPLE TASTES GROW ALONGSIDE WASHINGTON ORCHARDS**

As in many other regions, Mexico and Central America’s apple marketplace looked quite differently 15 years ago than it does today. Although once restricted to Red and Golden Delicious varieties, consumers in Mexico and Central America have now broadened their horizons to an array of apple tastes and textures.

Fryhover explained that growth trends in this region have evolved alongside the U.S. marketplace. As Washington has diversified its orchards, the state has worked to introduce new flavors to international buyers.

“Mexico and Central America are critical to the Washington industry. They are our key partner. They not only have large interest as far as quantity, but the diversification they are interested in is really an extension of the U.S. marketplace,” Fryhover said.

**THE RISE OF GALA AND GRANNY SMITH IN MEXICO**

One of the apples that has helped expand possibilities in Mexico and Central America is the Gala, explained **Juan Carlos Moreira**, Washington Apple Commission’s Mexico and Central America representative.

“Mexico was typically a Red Delicious and Golden Delicious market because those were the varieties available before we could import apples from Washington State,” Moreira said.

“The variety that came in and boosted the market was Gala. Once you have three varieties sharing the market, there is more stability.”

Perhaps more interesting has been the introduction of Granny Smith apples to Mexico. Although the tart flavor of this variety does not fit the typical Mexican flavor profile, Moreira said marketers have given the fruit a regional twist.

“We’ve been promoting Granny Smith as the perfect variety to eat during sports games with a pack of chili powder,” Moreira said.

Unlike most other apple varieties, Granny Smiths go well with a spicy kick and a drink – an ideal fit for watching the game. Although the spicy chili packs have not been a hit in all Central American countries, they have also struck a chord with shoppers in Guatemala and Costa Rica.

**NEW RETAILS FORMATS CREATE GROWTH IN DOMINICAN REPUBLIC**

After Mexico, the Dominican Republic is the largest market for Washington apples in Latin America. This nation is a predominately Red Delicious market, although that is changing with the growth of modern retail formats.

Street vendors, called “buhoneros”, are a particularly popular sales point during the Christmas season.

The Washington Apple Commission conducts activities designed to create loyalty and stimulate sales, such as providing purchase incentives like t-shirts and caps with its logo.

“These types of gifts are highly appreciated by these street vendors, and provide us with a very visible way to communicate our brand image with consumers,” said Washington Apple Commission international marketing director **Rebecca Lyons**.

**COUNTER-SEASONAL SUPPLY FOR SOUTH AMERICA**

Further south, the commission also conducts promotional activities in Colombia and Peru. Southern Hemisphere exporter Chile is a major presence in those markets, but as a counter-seasonal supplier, the Washington apple industry has a definite window of opportunity.

“We are fortunate to have a new crop of Washington apples as the Southern Hemisphere’s season is winding down,” Lyons said.

“We are able to take advantage of the Christmas holiday season with fresh crop apples that appeal to both traditional and retail market consumers.”

Although Colombia is the industry’s largest market in South America, Peru has shown remarkable growth since the free trade agreement between the U.S. and Peru came into effect in February 2009, growing from a few thousand cartons to over 330,000 cartons in the 2013-14 season.
The classic flavors and crisp crunch of these top nine apple varieties keep expectations high in Washington State’s orchards. Even with new varieties constantly in testing, it’s hard to beat these defining and iconic cultivars.

**RED DELICIOUS**
A crunchy classic, the Red Delicious maintains its status as America’s favorite snacking apple. The distinct heart-shaped fruit varies from dark to bright red, with occasional striping. Its mildly sweet flavor adds flair to fresh salads.

**GALA**
Gala inaugurates the fall harvest as the second most popular variety grown in Washington. The apple has earned popularity due to its versatility, crispness and sweet taste.

**FUJI**
This super-sweet, crisp apple was brought to the US from Japan in the 1980s. Since, the variety has flourished on U.S. orchards, where the apple is now produced in greater volume than back home.

**GRANNY SMITH**
A favorite of pie-bakers, the green Granny Smith has an extremely tart, crisp and juicy flavor. These versatile apples offer a reliable option for any fresh or cooked apple recipe.

**GOLDEN DELICIOUS**
The all-purpose apple, the Golden Delicious is yellow and sweet with tender skin that stays white for longer than other apples.

**BRAEBURN**
This apple leaves a lasting impression with its simultaneously sweet, tart and almost spicy flavor. The color varies from orange to red over a yellow background.

**HONEYCRISP**
Juicy with a tangy-sweet flavor, this newer variety rapidly gained popularity, in large part for its ideal snacking quality.

**CRIPPS PINK**
Also known as the Pink Lady®, Cripps Pink closes the apple harvest in Washington state in late October. Crisp fall nights bring on the bright pink color that gives the apple its name.

**CAMEO®**
Sweet with a zingy crunch, Cameo® holds its texture for long periods and is a perfect snacking apple.
Varieties
Washington State Club Varieties
Orchard Innovators

Club variety apples represent the entrepreneurial spirit of Washington’s industry. In search of the next Red Delicious or Honeycrisp, selective growers spearhead varietal development by growing newly available cultivars, known as club varieties. Through an exclusive licensing agreement, these club growers take on the necessary task of testing new cultivars for commercial sales. To capture the best prices, a single packer and marketer will work together on managing a given club variety.

LADY ALICE
A Washington original, the Lady Alice is as sweet as its name with a just hint of tartness. The dense texture complements the taste by adding a satisfying crunch. This heirloom variety, discovered as a chance seedling in Gleed, Washington, stands out for its bright pink stripes over a banana yellow background.

JUNAMI
Beautifully round with a captivating red color, the Junami originates from Switzerland. As a cross between Idared, Maigold and Elstar, the fruity Junami apple offers a tangy, crispy and juicy eating experience.

JAZZ
Like a sensory orchestra, the tart and sweet flavors of the Jazz apple harmonize with an audible crunch and effervescent texture. Jazz has been described as a perfectly delicious snacking apple. This cross between Royal Gala and Braeburn boasts a bright red color with subtle yellow under-stripping.

AUTUMN GLORY
Autumn Glory tastes much like its seasonal namesake, with a subtle hint of cinnamon. The intense “apple” flavor reminds the taste buds of other classic fall favorites such as applesauce and apple cider.

AMBROSIA™
The Ambrosia™ has a distinct honeyed and slightly perfumed flavor. The smooth skin almost appears to blush with a bright, iridescent pink color over a creamy yellow background. The tender and juicy flesh offers a fine, crisp texture. This low acid apple resists browning, so it’s a great addition to fruit salads.
SONYA

The Sonya's crisp texture and refreshing taste may hail from Gala and Red Delicious, but expect a sweeter flavor and more unique aroma than those of its parents. A very pleasant and tasty apple, the Sonya is delicious straight from the fridge, in salads or baked into pastries or pies.

BREEZE

A rosy, red-pink blush is just one outstanding feature of the Breeze. Harvested at optimum maturity, the Breeze is a crisp and dense fleshed, yet sweet and aromatic apple – offering the perfect combination of pipfruit traits.

OPAL

The Opal is a sweet and tangy cross between Topaz and Golden Delicious. It was discovered in Europe in 1999 and features a beautiful golden color accented with natural russetting at the stem. Fans rave about its excellent flavor and ability to resist oxidation after slicing.

PIÑATA!®

Piñata!® is the trademark name for the Pinova apple cultivar. Crisp and juicy, Piñata!® has classic apple flavors with a tropical twist. Great for fresh eating, Piñata!® also has heirloom heritage that lends well to any culinary application, including salads, baking, sauces and roasting.

AURORA

Although typically yellow in color, Aurora apples may display a pinkish-orange blush, hinting at its parent varieties, Gala and Splendor. This crisp apple exhibits notes of honey and tropical fruit to complement salads and even baking.

EMERGO

As a late season variety, the Emergo has dense flesh that provides a crisp and crunchy eating experience. This cross between Granny Smith and Splendor has a deep red color with a green background.

ROYAL JOBURN

The Royal Joburn is a wonderfully sophisticated apple with a beautiful, full red blush. Although slightly sweeter, its taste profile is similar to the much loved Braeburn.

ROSALYNN

The Rosalynn was discovered in an apple orchard in Royal City, Washington from a block that had a combination of Fuji, Gala, Winesap, Rome, Red Delicious and Golden Delicious apples. The apple has a firm and crisp, white flesh that makes it perfect for eating fresh or baking.
The history of Robison Orchards Inc. reaches back four generations, when Dave Robison’s grandfather first bought the family farm at Twenty-five Mile Creek in the 1950s. Located in the Lake Chelan area, the Robison orchards now consist of 250 acres spread over 30 miles throughout remarkable evergreen forest. As a member of the Chelan Fruit Cooperative, Robison Orchards is able to send fruit all over the world. In this Q&A, third-generation farmer Dave Robison discusses the business that continues to captivate his family’s interest.

What is it like to be out in one of your orchards? What stands out?
Our place is 20 miles from the city of Chelan, which is the closest town. It sits halfway up like Chelan, which is a 50.5-mile long lake outside of the orchards. It’s about a mile wide and 1,400 feet deep. It’s a very significant body of water that affects our microclimate significantly, allowing us to get good color on apples that are colored varieties. We have very cool night temperatures. The effect of the lake cools the nights down and keeps our days from being as hot as most other areas that grow fruit in Washington State.

What varieties do you work with? Are there any that stand out as signature varieties?
We grow apples, pears and we’re starting in cherries. Historically our signature variety was Red Delicious. However, in the last 15 years this area has moved out of Red Delicious, just like everybody else has. We grow Galas, Goldens, Granny Smith, Braeburn, Fuji, Jazz, Envy, and one we’re really excited about, Honeycrisp. We’re scheduled to start planting a new variety called CN121 – the scientific designation until we get a new name. The apple is a medium size and very sweet with a more complex flavor. It’s hard and bi-colored red and yellow.

Where can we find your apples?
We take our fruit to Chelan Fruit Cooperative, which is probably the largest apple growing co-op in the country. In combination to taking our fruit to Chelan Fruit, we help partner Gebbers Farms and the two of us sell our fruit through a company called Chelan Fresh. Chelan Fresh markets apples basically everywhere in the world. Most anywhere Washington Apples are, ours are there.

How would you like to see the apple program grow in coming years?
We try to target a high-end market. We’re looking for apples like Jazz, Honeycrisp and Envy and this new CN121 that people that have money are willing to pay premium for. We’re looking to target sizes and grades that people mostly in the United States want. Additionally, our dessert quality is known all around the world. Washington State has a reputation for being high end and that’s what we’re targeting, for sure. We’re trying to get away from the standard stuff, the Red, the Golden and Granny Smith. We’re focusing on maximizing the return we can get on a per acre basis rather than having more acres.
As many industries make significant changes to comply with the Food Safety Modernization Act, Washington apple growers will only need to implement minor adjustments to fully conform to federal guidelines.

Washington’s active food safety committee has pushed the region to stay ahead of the game by identifying potential areas of improvement and influencing research initiatives.

Additionally, Washington’s involvement in demanding international retail programs has required the industry to remain on the cutting edge, explained Chris Schlect, president of the Northwest Horticultural Council.

“Our industry is well in advance of most other industries in the United States in terms of compliance with food safety requirements and also research,” Schlect said.

At Stemilt Growers, compliance has meant transparency and clarity across the supply chain, said Eva Lauve, the company’s food safety manager.

“We know the way the retail community needs to know information as quickly as possible if there is an issue. We feel pretty confident in the exercises that we do that we can account for the fruit and for where the fruit went. We know the contact person at the retailers that we work with. So we feel very comfortable in our processes to date,” she said.

At its core, Lauve’s confidence can be attributed to traceability, consistency and a company culture that emphasizes both worker and product safety.

Like other Washington growers and packers, Stemilt operates under the guidance of a recognized food safety program—this case, the Safe Quality Food (SQF) Institute program. By conforming to a standardized process, Stemilt Growers has been able to improve the quality of its food and add clarity to its processes.

“What happened over the last 15 years in the SQF program is that it has become a part of our day-to-day processes. When we first started the program, a lot of the processes we had were deemed as tribal knowledge. So we totally evaluated the forms we filled out and who received them. We looked at all of the positions on our production floor,” she said.

As an industry, Schlect said food safety programs such as SQF have played a vital role in implementing best practices.

“The industry for many years has worked with private schemes that are familiar throughout the world fruit industry, for example Global GAP and SQF, to comply with international standards that are imposed by retailers around the world to grow and ship fruit,” Schlect said.

“Most of our industry complies with one of those private schemes, if not more than one. Fruit exporters from our region

“Every packing house has records of every grower that delivers product to their warehouse, as required by state law,” Schlect said.
follow stringent requirements in terms of record keeping, training of workers, and the use of water that are more or less under international standards.”

Industry improvements over the past 15 years have required attention to even the smallest of details, from hygiene along all points of the production line to reevaluation of chemical applications.

“We put processes in place so there was more clarity on proper handling of the chemicals, more clarity as to why we were using certain chemicals in certain situations. As it evolved over the years, the chemical manufacturers become more in tune with the needs of packers and shippers,” Lauve said.

When it comes to spraying in the orchard, for example, Schlect said growers closely observe international guidelines.

“Our apple growers in the Pacific Northwest follow spray guidelines as issued by the federal government or a state university extension. It’s very rare that we have problems meeting MRLs overseas,” he said.

“We do a lot of work on a lot of levels to ensure that whatever is shipped to a particular country meets that country’s standards.”

An established, respected traceability system helps the industry track chemical usage and keep growers honest.

“Every packing house has records of every grower that delivers product to their warehouse, as required by state law,” Schlect said.

“If an individual grower happens to have a problem, like misidentifying a chemical due to spray drift, it’s relatively easy to track it down and correct the problem.”

In addition to using G10 labeling numbers, Stemilt Growers also uses assigned grower and lot numbers to guide its traceability system. By following fruit from its parent lot through the packing line, Stemilt is prepared to quickly address a recall situation – which, fortunately, the company has never faced.

“We are able to better account for fruit today than we were four or five years ago and we are continuing to improve our system so that we can minimize the number of cases that would have to be in a recall situation if we had a recall,” Lauve said.

On a global level, Washington’s traceability and transparency efforts translate into ease of communication with buyers and government entities.

“Whether it’s labeling issues, MRLs or food safety concerns of another sort, we can relay that information to our exporters so that if there is an issue in a foreign country, we are aware of it as soon as possible and convey it to our entire industry so there are no disruptions to trade,” Schlect said.

He described Washington’s system as second to none – bringing the industry earned trust from years of service.

“We’ve been in the international market place for apples, pears and cherries for over 100 years. We are not a new entity to the market-

place. We’ve been here for a long time and our people have been selling internationally for a long time under U.S. production laws, which are among some of the most stringent in the world,” he said.

While Lauve speaks for Stemilt Growers, she described a culture change across the industry that has meant confidence and reliability throughout the supply chain.

“We know the contact person at the retailers that we work with. So we feel very comfortable in our processes to date,”

Lauve said.
From planting to packing, Washington goes high tech

Walking through a Washington apple orchard, it’s easy to forget the hustle and bustle of the outside world. Row after row brings lush, fruiting walls, accompanied by peaceful silence. From here, civilization seems to vanish into the background.

Don’t be surprised then, to see a farmer-operated drone zoom overhead. These high-tech devices may seem out of place in such a remote location, but they allow growers to view orchards from angles once unachievable.

The recent integration of aerial technology serves as an example of the high-tech turn being taken throughout the Washington industry, explained Howard Nager, vice president of marketing at Domex Superfresh Growers.

On the orchard level, drones have introduced greater efficiency in problem solving.

“To observe the orchard, it’s much easier for growers to launch a drone that is going to take pictures and view the orchard in many different ways that they couldn’t possibly do by themselves,” Nager said.

“If you have 50 acres or 100 acres to launch the drones up above, they can find if there are any gaps in the orchard or trees that aren’t growing properly. It’s a much quicker and easier way to hone in on an issue.”

From planting to packing, computer-assisted technology offers a helping hand to workers and improves management practices. The implementation of GPS systems, for example, has helped ensure order in new orchards.

“We are using a tractor that has an on-board GPS system so all of the rows are planted straight and according to where they need to be. This tractor will run by itself once GPS coordinates are set in. It takes control,” Nager said.

For Rainier Fruit Company, GPS-directed tractors have also inserted greater precision in the planting process, said Suzanne Wolter, the company’s director of marketing.
"It has also helped to remove from the equation the difficulty of trying to plant into tracts of ground where the terrain could be problematic to the older traditional methods of planting an orchard. This has improved the efficiency of the process," Wolter said.

Implementation of high-tech devices has even helped improve tried-and-true best practices, such as winter pruning - one of the most critical time periods for providing quality, consistency and shelf life.

"One of the pieces of the technology for winter pruning is called a platform. It is a motorized platform that gets the pruners up above the trees so they see the wood they're cutting and see where the opportunities are for additional cuttings," Nager said.

"It's a much safer, more efficient piece of equipment to assist in the pruning." Wolter said three types of platforms, varying from traditional to high-tech, are currently put to use in Rainier's orchards.

"We have three different types currently in use: the older type of platform that is stationary in height and pulled by a tractor, a newer system that is totally self-contained, and another newer platform system that is pulled by a driver-less tractor with back up controls on-board the platform for use when needed," Wolter said.

"These can be used for pruning, fruit blossom thinning, green fruit thinning during early summer and tree training. This reduces the use of ladders in the field, which is the number one area of worker injury in the industry." For orchard water management, Wolter highlighted Rainier's in-ground moisture sensors, which aid irrigation frequency and GPH flow rate by delivering 95% root penetration rate compared to 55% efficiency with older impact-type sprinklers.

"These monitoring systems assist growers in not just increasing the water use efficiency, but also assists them in controlling moisture and humidity within their blocks which helps to ease some of the potential for fire blight infection and other diseases," Wolter said.

PACKING TECHNOLOGY
Once fruit has been picked, Washington apples are processed with some of the world's best packing technology to promote safety and quality.

With the support of a new, 70,000 square foot packing facility, Nager said Domex Superfresh Growers has been able to insert greater controls and process much larger volume.

"Many of the Washington apple shippers and larger packers have made investments in the past couple of years in updating the packing lines, the reason being these large crops that are now going to be coming on," Nager said.

"It's not just packing; it's the whole infrastructure of the operation - everything from sourcing new and additional bins, to cold storage capabilities."

Domex's new packing line comes equipped with a new color and defect sorter, Compac InVision 9000. Each piece of fruit is photographed 40 times to determine internal and external quality.

"To observe the orchard, it's much easier for growers to launch a drone that is going to take pictures and view the orchard in many different ways that they couldn't possibly do by themselves," Nager said.

"By combining the benefits of commit-to-pack (direct to the box with minimal handling of product) with the strengths of a presize (quick response to unique customer requests and very short inventory times) the perfect process has been created."

In particular, Wolter said the Max Line offers a complex size and grading system through vision-sorting software that utilizes multiple cameras to sort out fruit defects. A non-destructive, internal sorting system also allows a full assessment of fruit without additional handling.

Once sorted and packed, the fruit moves along through an automated pallet system and is tracked through an over-arching warehouse management database that tracks shipments through the supply chain.

The practices and technologies being implemented by Domex and Rainer serve as just a few examples of the innovative spirit of Washington’s apple industry. As crop sizes grow and markets expand, Washington will continue testing the latest and greatest technologies to maximize the consumer experience.
**AU Vil F RUIT C O M P A N Y**

Auvil Fruit Company has been growing good eating fruit since 1928. At its ranches along the Columbia River in central Washington, Auvil Fruit takes pride in the quality and consistency of its apples and cherries. With Auvil Fruit's large fields and unique growing techniques, its Gee Whiz labeled fruit is unrivaled in condition and eating quality. Auvil specializes in Granny Smith, Fuji, Cripps Pink, Gala, Honeycrisp, and its new Aurora apple varieties. Auvil Fruit is also world renowned for its Rainier cherries.

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**B O R T O N & S ON S I N C .**

Borton & Sons Inc. is a premium grower, packer and shipper of the highest quality apples, pears and cherries in Washington State. The century-old, fourth-generation family business sustains an unrivaled level of commitment and experience in the fruit industry. Borton & Sons Inc. is able to offer the world’s finest apples and pears virtually year around along with seasonal Northwest cherries, shipping an outstanding product mix to fulfill the needs of any customer worldwide.

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**C M H O L T Z I N G E R F R U I T C O , L L C**

CMI Holtzinger Fruit Co., LLC is one of the oldest fresh fruit companies in Washington State. Holtzinger Fruit is an advocate for the small to mid-size independent grower. The company partners with these producers to pack, market, sell and ship their produce, allowing them to focus their attention on growing premium quality fruit. Holtzinger Fruit currently ships high-quality, U.S. grown apples, pears and cherries domestically, coast to coast and internationally to 35 countries.

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**C M I (C O L U M B I A M A R K E T I N G I N T E R N A T I O N A L)**

Over the last 25 years, CMI has steadily grown into one of Washington State’s largest apple, pear and cherry shippers and growers. CMI continues to be a pioneer in new varieties, sustainability, creative packaging and growing technologies. CMI offers exclusive varieties and brands such as Ambrosia and Hero apples, Sweet Gourmet pears and Daisy Girl Organics.

At CMI, growing great apples, pears and cherries is a way of life. Innovative growing techniques, environmental land management, state-of-the-art packing and shipping operations, and the best service around – it’s all part of CMI’s commitment to the land, families and its customers. CMI offers a full selection of the finest organic and conventional fruit, grown with pride and commitment to quality.

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**C H E L A N F R E S H**

Chelan Fresh has grown to become one of Washington State’s largest marketers of fresh fruit with estimated annual sales of 16 million boxes of apples, pears and cherries. Today Chelan Fresh ranks as one of the nation’s largest providers of fresh cherries. Chelan Fresh ships to retail and wholesale customers nationally and exports to over 50 countries, while representing about 400 regional farms and warehouses.

Chelan Fresh growers are leaders and innovators in orchard growing practices, complementing a network of warehouses with advanced processing and state-of-the-art packing technology in every location. Through implementation of best practices, Chelan Fresh delivers the best fresh fruit to its customers.

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**D O M E X S U P E R F R E S H G R O W E R S**

Domex Superfresh Growers®, one of the Kershaw Companies, is a leading grower and shipper of both conventional and organically grown apples, pears, cherries and apricots from the Pacific Northwest. The Kershaw Companies are a vertically integrated agricultural organization specializing in farming, warehousing, sales, marketing and logistic services. Domex grows and ships all major apple varieties, including Gala, Red Delicious, Granny Smith, Golden Delicious and Fuji. Domex is also the exclusive grower of Autumn Glory®, a club variety apple with a very sweet, firm flesh and a subtle “cinnamon” flavor.

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**M E N U**

- **C H E L A N F R E S H**
- **D O M E X S U P E R F R E S H G R O W E R S**
- **C M I (C O L U M B I A M A R K E T I N G I N T E R N A T I O N A L)***
  - **A U Vil F RUIT C O M P A N Y**
  - **B O R T O N & S ON S I N C .=**
  - **C M H O L T Z I N G E R F R U I T C O , L L C**

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*Please note that the above menu is not meant to be exhaustive. Additional shipper profiles may be available.*
**EVANS FRUIT COMPANY**

Evans Fruit Company was started in 1959 by apple growers Bill, Jeanette and Guy Evans. The company grows and ships approximately 10 million packed boxes a year, specializing in varieties such as Red Delicious, Golden Delicious, Granny Smith, Gala Gala, Aztec Fuji, Jonagold, Braeburn, Cripps Pink and Honeycrisp.

Evans Fruit is unique in that it owns and operates 95% of its own farming operations. The company also owns three production facilities, all utilizing the industry’s most advanced machinery to sort product through both external and internal quality technology. The company puts a strong emphasis on quality through in-house inspections and lot documentation. Evans’ operations are all SQF certified with proven traceability systems. Evans’ apples are shipped all around the world and have gained international recognition for their quality and eating experience.

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**HONEYBEAR GROWERS**

Honeybear Growers is a small-sized shipper located in the best growing region of Washington State. Its northern location provides its fruit the long days and the cool nights that encourage firmness and vibrant color. The company’s program focuses on exceeding expectations. Quality fruit is Honeybear Growers’ game.

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**NORTHERN FRUIT**

Northern Fruit’s Nordic brand, also known as “the waving polar bear,” is a recognized leader for quality and consistency in export markets around the world.

Three foundations define Northern Fruit’s success:
1. Aggressive investment in cutting-edge apple and cherry packing technology.
2. Orchard, packing and sales teams committed to delivering a higher level of eating quality, consistency and customer service.
3. Long-term relationships with growers and customers built on a handshake.

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**ONEONTA TRADING CORPORATION**

Founded in 1934, Oneonta Trading Corporation is a grower, packer and shipper of premium apples, pears, cherries and stonefruit to over 50 countries worldwide. The company’s global brands include Starr Ranch Growers, Diamond Starr Growers and Starr Ranch Organics. Founded in 1934, the company uses horticultural expertise, quality control, food safety and innovative marketing to keep up with the ever-changing dynamics of the economy.

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**RAINIER FRUIT COMPANY**

Rainier Fruit Company is a vertically integrated grower, packer, sales organization of Northwest grown apples, pears, cherries and blueberries. The company can be described as a family of families where each member has a common goal of producing the finest quality products able to ship anywhere in the world and deliver a consistently flavorful eating experience each and every time. The process of bringing fruit to market touches many hands throughout the organization and precise attention to detail in all areas separates Rainier from the competition.

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**SAGE FRUIT COMPANY**

Founded in August 1999, Sage Fruit Company has become a premier grower and shipper of apples, pears and cherries. Located in the heart of the Pacific Northwest, Sage Fruit Company takes great pride in its commitment to quality, innovation and service. Sage growers farm several thousand acres of orchards throughout the state of Washington, as well as parts of Oregon. The company offers a variety of apples and pears throughout the year. During the summer months, Sage also packs Dark Sweet and Rainier cherries. By using the most efficient and effective growing methods available, Sage is able to deliver quality product to customers year-round.

Signature apple varieties include Sonya, Emergo, Royal Jonagold, Braeburn, Cripps Pink and Honeycrisp.

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**YAKIMA FRESH**

Yakima Fresh represents a partnership between three of the most successful Northwest growers, packers and shippers. Each company has deep roots and a very proud heritage in the fruit industry, in some cases going back over a century.

The company operates four state-of-the-art packing and shipping warehouses in Washington and Oregon, each with comprehensive in-house quality control and food safety practices that are rigidly followed. The pre-size facilities and multiple packaging capabilities afford Yakima Fresh the flexibility to meet customers’ packaging needs in a timely manner. Yakima Fresh also understands the importance of controlling the product from tree-to-table.

Yakima Fresh is completely customer-driven, with an experienced team of professionals in sales, transportation, merchandising, marketing and ecommerce. The company is dedicated to providing customers with individual attention, innovative solutions and world-class service.

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