



Indiana Farmers Markets:

Specialty Crop Prices of the 2018 Market Season

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Indiana farmers markets differ greatly in size, diversity, product offerings, and clientele. Data from our Purdue Horticulture Business project described below reported that farmers at 12 markets sold almost 500 crops in various presentations and units. The wide variety of fruits, vegetables, and herbs offered in these markets highlight the Hoosier economy and gastronomy. This publication provides the 2018 prices of the most frequently sold fruits, non-leafy vegetables, leafy greens, and other specialty crops offered at 12 farmers markets in Indiana. For more information on crops and prices, go to the website purdue.ag/HortBusiness.

Main Characteristics of Indiana Farmers Markets

Farmers markets are a centerpiece of local food systems. These markets offer important benefits to farmers, buyers, and communities across the United States. On the supply side, these market outlets allow farmers to sell their produce directly to consumers and establish long-term relationships with them. Among the benefits of farmers markets for growers are: receiving a larger share of consumers' dollars, improving business cash flow, accessing an outlet for value-added products, delegating marketing to market managers, receiving immediate feedback for products and varieties, and joining networks of farmers.

In a survey of fruit and vegetable farmers, Torres and Marshall (2016) found that over two-thirds of Indiana fruit and vegetable farmers sell produce through farmers markets. This was especially true for smaller operations that are able to leverage the "local" label to appeal to customers. More information about specialty crops operations in Indiana are available in *Fruit and Vegetable Farmer Surveys: Characteristics of Indiana Vegetable Farming Operations* (Purdue Extension publication HO-270-W) and *Fruit and Vegetable Farmer Surveys: Characteristics of Indiana Vegetable Farmers* (HO-271-W). Both are available from the Education Store, edustore.purdue.edu.

On the demand side, farmers markets promote the sustainability of local economies, increase access to and availability of fresh and healthy foods, improve knowledge of seasonal produce that has been harvested at the peak of quality, and provide community events and entertainment for the community members.

In summary, farmers markets provide a venue for communities to socialize, revitalize downtown districts, and help educate people to make healthier food choices.

The popularity of farmers markets continues to increase in the United States. According to the Local Food Directories from the United States Department of Agriculture-Agricultural Marketing Service (USDA-AMS), there are currently over 8,750 farmers markets in the United States, an increase of over 400 percent since 1994 (USDA-AMS, 2017). In Indiana, there are almost 200 (197) markets, most (over 70%) being summer markets, and the rest may operate also during winter (see Figure 1).

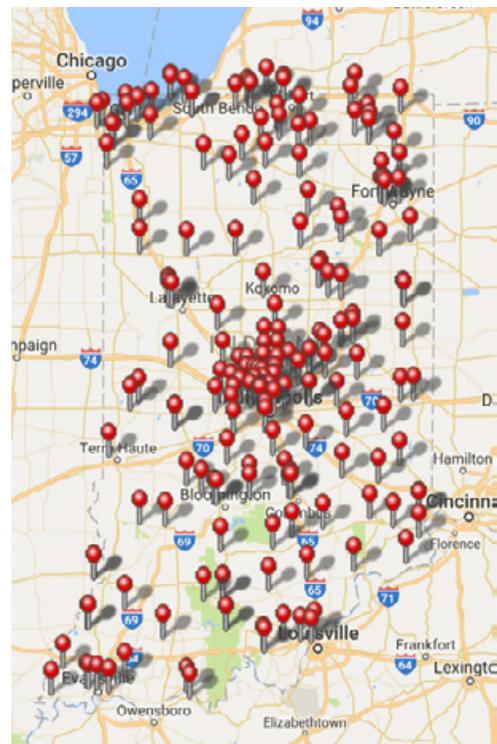


Figure 1. Location of Indiana farmers markets. Source: USDA-AMS Farmers Markets Directory (www.ams.usda.gov/local-food-directories/farmersmarkets).

Availability of Pricing Information

The growth and popularity of farmers markets offer important opportunities for fruit and vegetable farmers in Indiana. Indiana farmers can take advantage of the opportunities of selling directly to consumers; however, they face a dearth of information regarding pricing and marketing strategies. The lack of pricing and sales information not only increases risk, it also limits farmers' ability to assess farm profitability, evaluate price and marketing strategies, determine the market window for specific crops, choose market channels, and assess market feasibility for new crops.

In contrast, information about pricing and product quality requirements are generally available for farmers who produce enough volume to enter wholesale markets. Growers selling through wholesale markets can access weekly price reports for these outlets. For example, the USDA-AMS publishes wholesale and retail prices of fruits and vegetables weekly on the Market News website (www.ams.usda.gov/market-news/fruits-vegetables). Wholesale and retail price reports can help growers overcome risk and uncertainties, define their marketing strategies, assess investment in new technologies, and assure profitability.

The Purdue Horticulture Business Project

Determining the right price is one of the most important drivers of farm profitability and sustainability. Information about price-setting strategies is one of the most frequent requests among farmers who sell directly to consumers. Ideally, pricing strategies take into account market prices, administrative costs, profitability goals, and consumers' preferences. This publication provides data related to the first factor: prices at the marketplace.

Since 2017, our team of researchers at the Purdue Horticulture Business Extension Program has collected prices of specialty crops sold through farmers markets in Indiana. The goal of the project is to collect foundational data and establish long-term pricing reports for Indiana specialty crops sold at farmers markets. To achieve our goal, we are collaborating with farmers market managers, Purdue students, Extension educators, and volunteers in nine Indiana counties to collect and publish weekly prices of produce sold through 11 Indiana

farmers markets on the Horticulture Business Program website, purdue.ag/HortBusiness. The project was supported by Purdue AgSEED and the Indiana Vegetable Growers Association (IVGA).

Highest and lowest prices were collected for each crop to provide its price range. When possible we obtained prices in standard measurable units such as pound, each, and head. In addition, our reports also include prices for bag, box, and bunch. While it is hard to compare the volume and weight of these less standard measurable units, they highlight the diversity of vendors and produce offerings at farmers markets.

In winter 2017-2018, we collected and published prices of fruits, vegetables, leafy greens, and herbs sold at the Bloomington Winter Farmers Market. In the summer of 2018, we added 11 summer markets from nine counties in northern, central, and southern Indiana. Summer markets are located in Bloomington (Monroe County), Boonville (Warrick County), Decatur (Adams County), Kokomo (Howard County), Lafayette and West Lafayette (Tippecanoe County), LaGrange (LaGrange County), Richmond (Wayne County), Plymouth and Culver (Marshall County), and Vincennes (Knox County) (see Figure 2).



Figure 2. Counties in Indiana where our project collects farmers markets prices.

Benefits of Using Pricing Reports

Farmer using pricing reports can use the findings of our project to:

- **Compare prices of produce** across markets, units, and seasons
- **Determine the market window** of almost 500 crops sold in 12 markets
- **Assess the economic feasibility** of season extension technologies
- **Choose the crop mix** that maximizes farm profitability
- **Estimate potential farm profitability** by using enterprise budgets
- **Understand competition** by looking at price variations
- **Consider costs and benefits** of different crops and markets

Prices of Frequently Sold Specialty Crops

Figures 3 through 18 report the price trends (highest and lowest) of the most frequently sold specialty crops through Indiana farmers markets in 2018. We grouped crops in four categories: fruits, non-leafy vegetables, leafy greens, and other specialty crops. The price range between highest and lowest prices reflects product differentiation due to quality, types and varieties, vendor presentation, and other marketing factors.

Median prices are another approach of looking at prices at the marketplace. Median prices represent the median value between the highest and lowest prices. More information about median price analysis of Indiana farmers markets can be found in *A Comparison of Price Trends Between Farmers Markets and Grocery Stores* (HO-300-W) available from the Education Store, edustore.purdue.edu.

Fruits

Figures 3 through 6 illustrate the price variations of apple, cantaloupe, peaches, and watermelon. These four most frequently sold fruits in the Indiana's farmers markets were mainly offered from June to October 2018. Apples were available throughout the entire year. Of the fruits sold by the piece, watermelon received a higher top price (\$10 each) than cantaloupe (\$7 each). Apples received a higher maximum price than peaches (\$4.50 vs. \$2.75 per pound). The lowest prices were \$0.75 each for cantaloupe and \$0.75 per pound for apples.

Figure 3 shows apples were sold by pounds starting the first week of 2018 until the end of the year, and the price ranged between \$4.50 (early October) and \$0.75 per pound (mid-August).



Figure 3. Highest and lowest prices of apple (\$/pound) sold at Indiana farmers markets in 2018.

Melons (Figure 4) were sold from late June until mid-October. The highest price paid for each melon (excluding watermelon) was \$7.00 (early July), and the lowest price was \$0.75 (late-July, and from late August to early October). The price range in melon was due to different varieties and sizes of fruit sold at the markets.

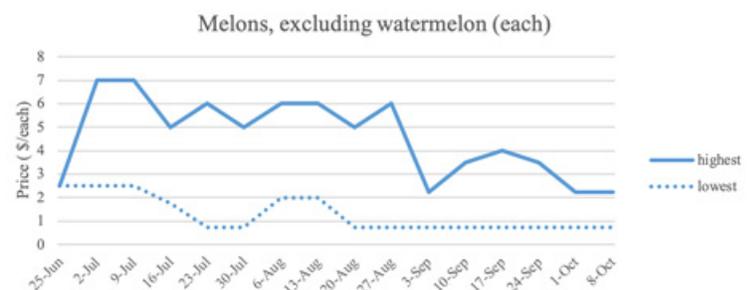


Figure 4. Highest and lowest prices of melon (\$/each) sold at Indiana farmers markets in 2018.

Figure 5 shows the prices of peaches per pound from late May until early October. The highest price for peaches was \$2.75 per pound, received at the beginning of the season. Peach prices went down to \$2.50 per pound and stayed there until the end of the season. Interestingly, peaches sold had the same price at all markets.

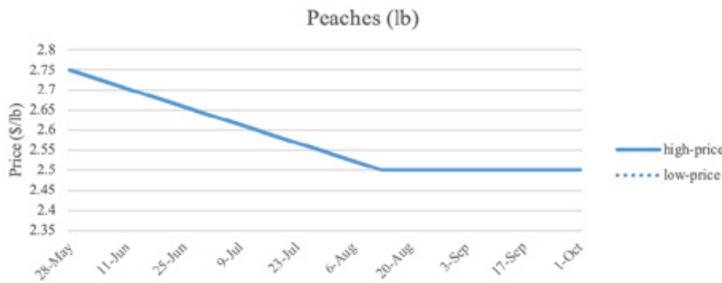


Figure 5. Highest and lowest prices of peaches (\$/lb) sold at Indiana farmers markets in 2018.

Watermelons (Figure 6) were sold at farmers markets from late June to early October. Their price per unit ranged between \$10 (early August) and \$2.00 per watermelon (from June to September).

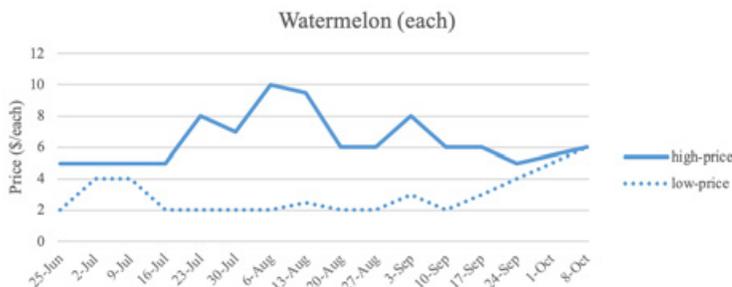


Figure 6. Highest and lowest prices of watermelon (\$/each) sold at Indiana farmers markets in 2018.

Vegetables

Figures 7 through 10 illustrate the price variations of the most frequently sold non-leafy green vegetables in the 2018 Indiana farmers market year: slicing cucumbers, bell peppers (including green, yellow, red, and orange), slicing tomatoes, and zucchini. These vegetables were mainly available from May to October. Tomatoes received the highest price among this group with \$4.95 per pound, while slicing cucumbers and bell peppers received the lowest prices. The largest average price range between the highest and lowest prices was for slicing tomatoes with a difference of \$2.18 per pound.

Cucumbers were sold in the markets from late April until early November. The price for cucumbers ranged between \$2.00 each in May and \$0.20 each in July.

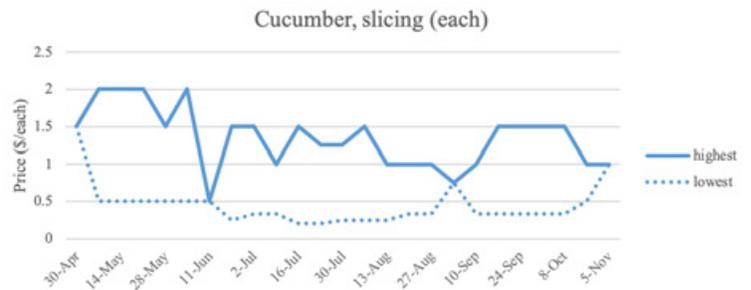


Figure 7. Highest and lowest prices of slicing cucumber (\$/each) sold at Indiana farmers markets in 2018.

Figure 8 shows the availability of bell peppers in Indiana farmers markets from May to early November. The highest price for bell peppers was \$2.00 each (mid-August and early October). The lowest price received for each bell pepper was \$0.20.

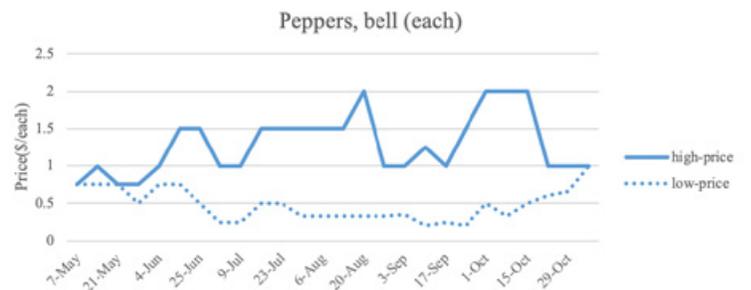


Figure 8. Highest and lowest prices of bell peppers (\$/each) sold at Indiana farmers markets in 2018.

In 2018, farmers markets in Indiana sold slicing tomatoes from mid-April to mid-December. The highest price received for a pound of slicing tomatoes was \$4.95 (late June to mid-July), while the lowest price was \$0.50 (mid-September to mid-October).

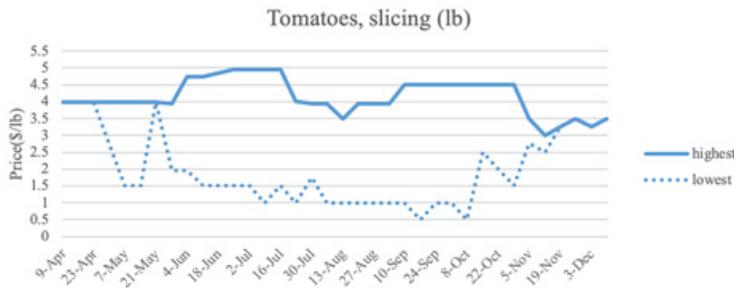


Figure 9. Highest and lowest prices of slicing tomatoes (\$/lb) sold at Indiana farmers markets in 2018.

Figure 10 shows prices of zucchini sold at Indiana farmers markets from May through October in 2018. The highest price for each zucchini was \$2.50 each in early September, while the lowest price stayed between \$0.25 and \$0.33 per unit from mid-June to mid-October.

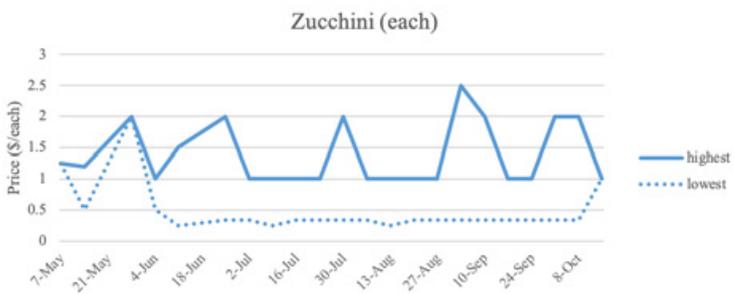


Figure 10. Highest and lowest prices of zucchini (\$/each) sold at Indiana farmers markets in 2018.

Leafy greens

Figures 11 through 14 illustrate the price variations of the most frequently sold leafy greens in farmers markets, including basil, cabbage, kale, and spinach. Leafy greens were sold in farmers markets throughout the entire 2018 market season. Most leafy greens were reported in non-standard measurable units (bag, bunch, box, pint), which highlights the diversity of produce offering but creates some issues when comparing units and produce. Spinach (bag) and basil (bunch) received the highest prices in this category at \$5.00. On the other hand, cabbage (each) received the lowest price at \$0.50 per head.

Figure 11 illustrates that basil was available in Indiana farmers markets from January to early December. The highest price of a bunch of basil was \$5.00 (mid-May), while the lowest price was \$1.00 per bunch (June-September).

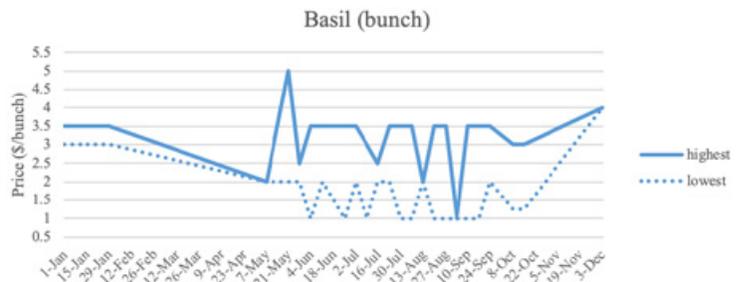


Figure 11. Highest and lowest prices of basil (\$/bunch) sold at Indiana farmers markets in 2018.

Cabbage was sold from May through December. This crop received its highest price of \$4.00 per head during May, June, November and December, and its lowest price of \$0.50 per head in July and September.

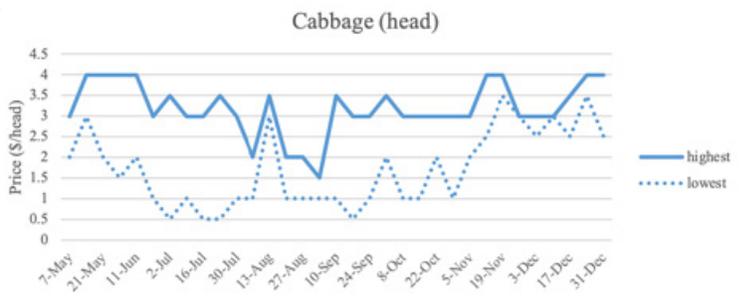


Figure 12. Highest and lowest prices of cabbage (\$/head) sold at Indiana farmers markets in 2018.

Figure 13 shows that kale was sold every week throughout the 2018 market season. Kale reached its highest price multiple times from March to December at \$4.00 per bunch. Its lowest price was \$1.75 per bunch in mid-July.

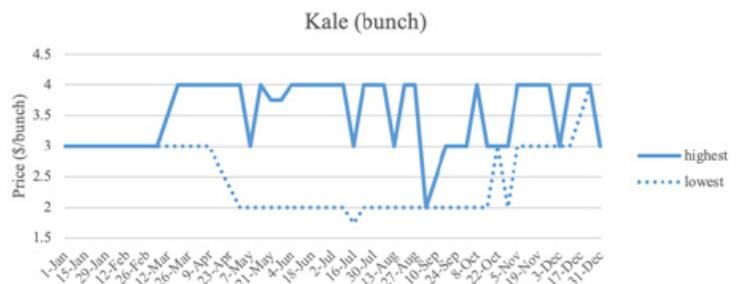


Figure 13. Highest and lowest prices of kale (bunch) sold at Indiana farmers markets in 2018.

Spinach (per bag) was sold from January to December in the 2018 market season. The highest price of spinach was \$5.00 per bag (early summer, late fall) while the lowest price was \$2.00 per bag (peak of summer season).

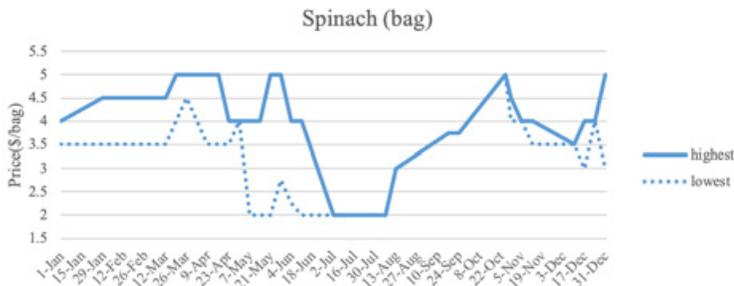


Figure 14. Highest and lowest prices of spinach (\$/bag) sold at Indiana farmers markets in 2018.

Other specialty crops

Microgreens, mushrooms (morel, shiitake, and other), okra, and raspberries are examples of other specialty crops sold in Indiana farmers markets in 2018. These crops either received high prices per unit or were popular among farmers and consumers. From this group, mushrooms received the highest price of \$16.00 per pound for nearly the whole season, while microgreens and okra had the lowest price of \$1.75 per box. The biggest gap between highest and lowest prices was for mushrooms at \$3.13 per pound.

Microgreens were sold from late April to mid-December in Indiana farmers markets. The price per box of microgreens ranged between \$8.00 (August and September) and \$1.75 (early June).

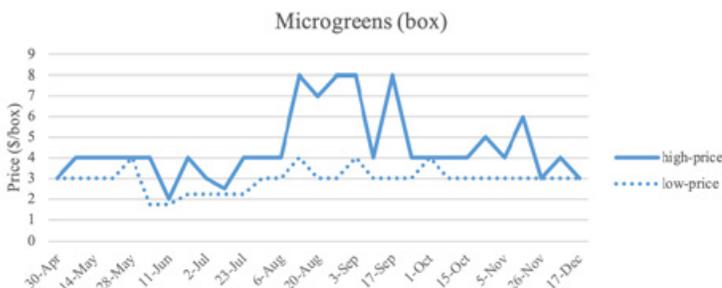


Figure 15. Highest and lowest prices of microgreens (\$/box) sold at Indiana farmers markets in 2018.

Figure 16 shows that mushrooms were sold in Indiana farmers market from January to April, and again in December of 2018. Mushrooms prices ranged from \$16.00 to \$12.00 per pound.

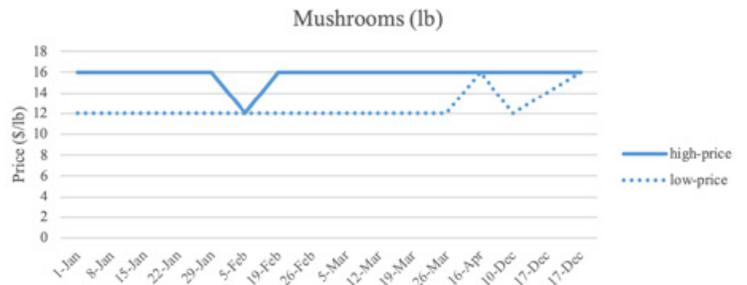


Figure 16. Highest and lowest prices of mushrooms (\$/lb) sold at Indiana farmers markets in 2018.

Figure 17 shows that okra sales in Indiana farmers markets occurred from mid-June to mid-October. The highest price received for a box of okra was \$4.00, while the lowest was \$1.75 per box.

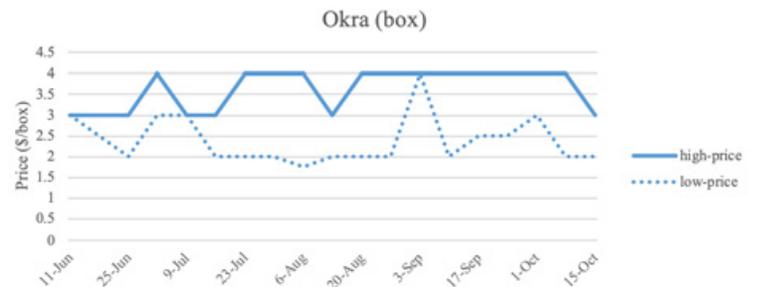


Figure 17. Highest and lowest prices of okra (\$/box) sold at Indiana farmers markets in 2018.

Raspberries were sold from late June to early October in the 2018 market year. The highest price for a pint of raspberries was \$10.00 in early July, while the lowest price was \$2.00 at the same time. We expect that this price difference was due to difference in quality, varieties, and other marketing factors, such as labels.

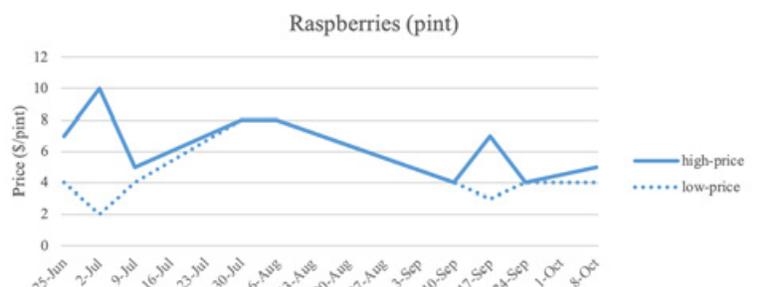


Figure 18. Highest and lowest prices of raspberries (\$/pint) sold at Indiana farmers markets in 2018.

Conclusions

This publication reports on the findings from the 2018 Purdue Farmers Market Pricing project. Data collected from the project illustrate the lowest and highest prices of almost 500 specialty crops sold in different presentations and units through 12 Indiana farmers markets. This publication provides the price trends and market availability of 16 frequently sold crops: 4 fruits, 4 non-leafy vegetables, 4 leafy greens, and 4 other specialty crops. The complete list of specialty crops and weekly prices are available at purdue.ag/HortBusiness.

One of the main factors influencing price variation is seasonality. Our data show that prices of most specialty crops sold at farmers markets tend to be higher at either the beginning or end of the market season, and lower during the summer. Higher yields, production in home gardens, and more vendors may be driving lower prices of produce sold during summer.

We observed that prices also seem to be affected by product quality, product labels, varieties (e.g., heirloom), and other marketing factors. For example, price range for melons (Figure 4) may be due to the fact that varieties of oriental melon tend to be smaller and priced lower than cantaloupe. Farmers using labels such as organic, chemical-free, and other certifications are more likely to receive price premiums for their produce. Lastly, specialty varieties, such as heirloom tomatoes, tend to command higher prices at local outlets.

Farmers can use information from our report to choose the crop mix that improves farm profitability. For instance, farmers could determine that lower prices of some crops during the summer peak of production may not cover their costs, thus substituting another leafy green for spinach might increase revenue and crop diversity. Moreover, the bigger the gap between the highest and lowest prices for a specific crop, the more pricing options farmers may have for their produce.

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