



# **La Rentabilidad Económica de la Producción de Manzanas**

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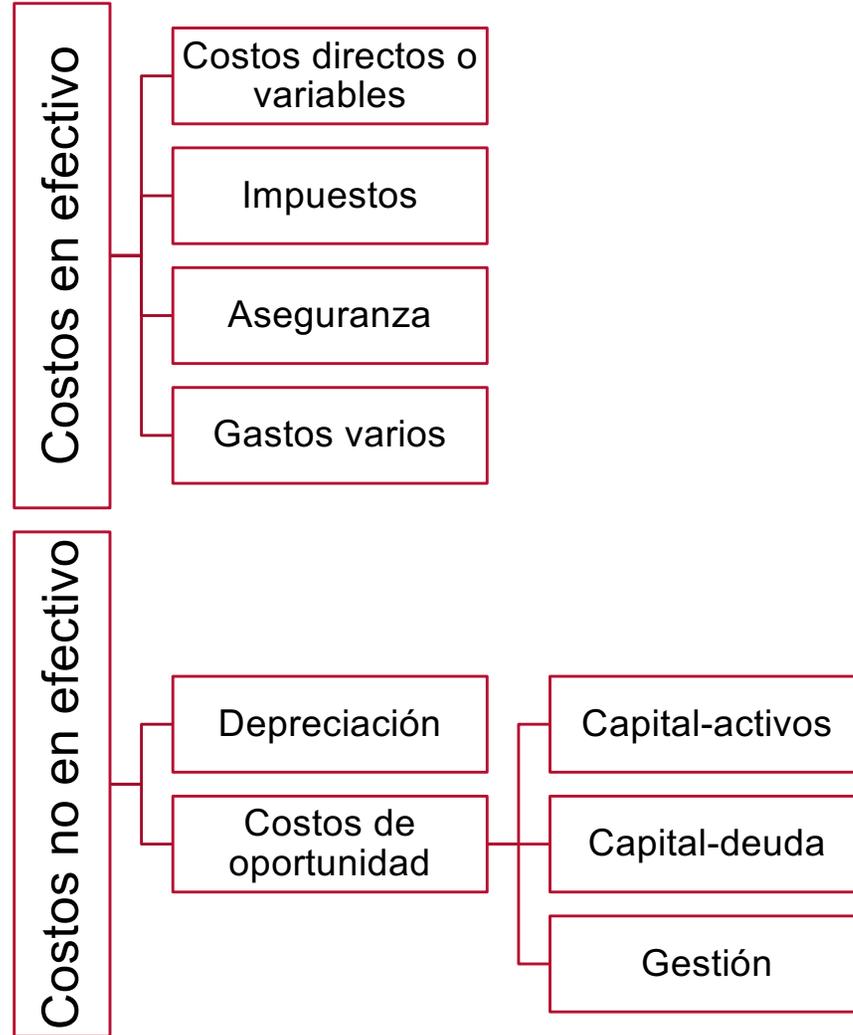
Universidad del Estado de Washington

10 Diciembre 2024





# Costos de Producción



# Costos de producción

- **Las ganancias no siempre son  $> 0$**   
Variabilidad en el rendimiento y precio
- **Situación económica a corto plazo**  
Costos en efectivo
- **Situación económica a largo plazo**  
Costos en efectivo y no en efectivo





# WSU Presupuesto Operativo Manzana

- 2009
- 2012
- 2014
- 2019
- 2024: Gala, Granny Smith, Honeycrisp, Cosmic Crisp®



## 2014 COST ESTIMATES OF ESTABLISHING, PRODUCING, AND PACKING GALA APPLES IN WASHINGTON STATE

By  
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## Crop Enterprise Budgets

Washington State University has a history of developing and publishing enterprise budgets for many of the major crops grown throughout Washington State. The purposes of these budgets are to estimate the costs and returns from producing these crops for research and policy purposes and to provide producers and their credit providers with a tool to use in enterprise selection and financing.

### Washington Enterprise Budgets for Crop Commodities

Search:

Commodity	Title	Author	Date	Link
Alfalfa	2012 Irrigated Alfalfa Hay Budget Under Center Pivot in the Columbia Basin (FS133E)	Norberg, Neibergs	2014	pdf excel
Alfalfa	Organic Alfalfa Management Guide (Feb 2009) (EB2039E)	Fuerst, Koenig, Kugler, Painter, Stannard, Goldberger	2009	pdf
Alfalfa	Spreadsheet for Dryland Organic Alfalfa Production	Painter	2009	pdf excel
Alfalfa	2009 Costs of Producing Alfalfa Hay	Hinman,	2009	pdf

### Financial Analysis & Record Keeping

Careful record keeping and some basic financial analysis can take some of the guesswork and stress out of being a business manager:

- Motivation - Why get excited about financial analysis?
- Analyzing your farm's financial performance - Cash flow statements
- Investment analysis - Different evaluation methods
- Amortization of loans - Making them cash flow

More...



# www.ses.wsu.edu/enterprise\_budgets

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### Washington Enterprise Budgets for Crop Commodities

Search:

Commodity	Title	Author	Date	Link
Apples	2015 Cost Estimates of Establishing and Producing Specialty Cider Apples in	Galinato, Miles	2017	pdf excel
Apples	Feasibility of Different Harvest Methods for Cider Apples: Case Study for Western Washington (TB32)	Galinato, Miles, Alexander	2016	pdf
Apples	TB32 Appendix A. Hand Harvested Cider Apples (spreadsheet)	Galinato, Miles, Alexander	2016	excel
Apples	TB32 Appendix B. Mechanically Harvested Cider Apples (spreadsheet)	Galinato, Miles, Alexander	2016	excel

### Financial Analysis & Record Keeping

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More...

# Suposiciones-Vertical

	Gala	Granny Smith	Honeycrisp	Cosmic Crisp®
Tamaño del rancho (acre)	300	300	300	300
Tamaño del bloque productivo (acre)	52	28	26	10
Rendimiento (bines/acre)	79	79	65	78
Empaque (caja/bine)	18.5	17.5	16	18.5
Precio FOB (\$/40-lb caja)	24	26	44	35
Espaciado entre arboles (pies)	3	3	3	3
Espaciado entre hileras (pies)	10	10	10	10
Portainjerto	G41	G41	G41	G41
Vida útil de la plantación (años)	20	20	20	20
Densidad (árboles/acre)	1,452	1,452	1,452	1,452
Sistema de soporte	Sistema de soporte vertical			



# Suposiciones-Angulo

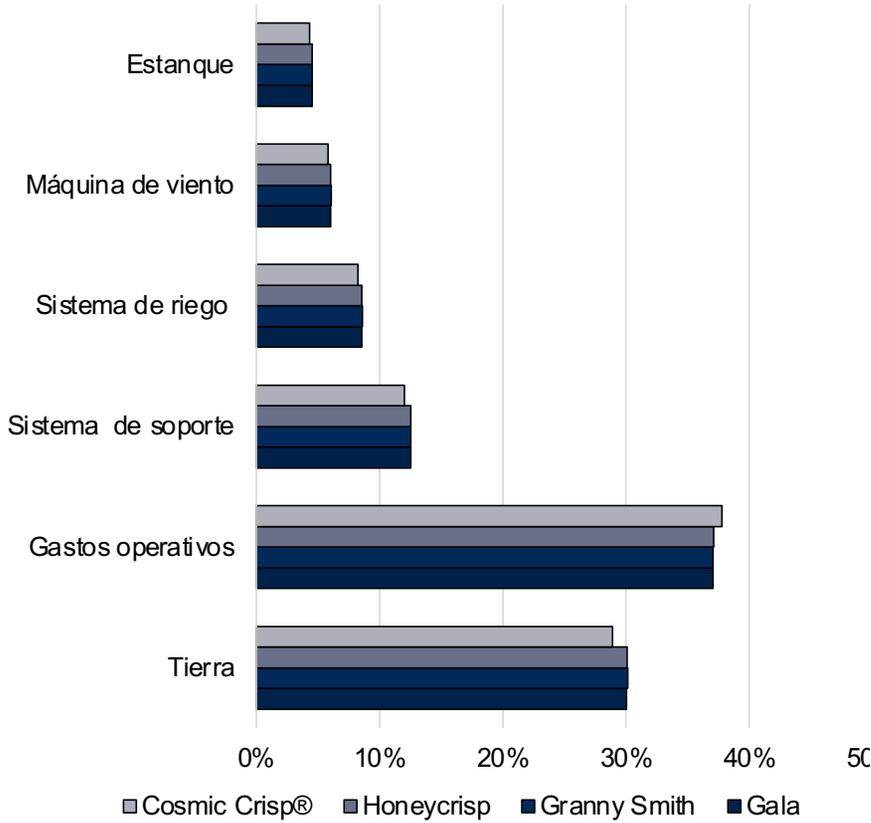
	Gala	Granny Smith	Honeycrisp	Cosmic Crisp®
<b>Tamaño del rancho (acre)</b>	300	300	300	300
<b>Tamaño del bloque productivo (acre)</b>	52	28	26	10
<b>Rendimiento (bines/acre)</b>	98	99	81	97
<b>Empaque (caja/bine)</b>	18.5	17.5	16	18.5
<b>Precio FOB (\$/40-lb caja)</b>	24	26	44	35
<b>Espaciado entre arboles (pies)</b>	2	2	2	2
<b>Espaciado entre hileras (pies)</b>	10	12	10	10
<b>Portainjerto</b>	G41	G41	G41	G41
<b>Vida útil de la plantación (años)</b>	20	20	20	20
<b>Densidad (árboles/acre)</b>	1,815	1,185	1,815	1,815
<b>Sistema de soporte</b>	Sistema de soporte vertical			



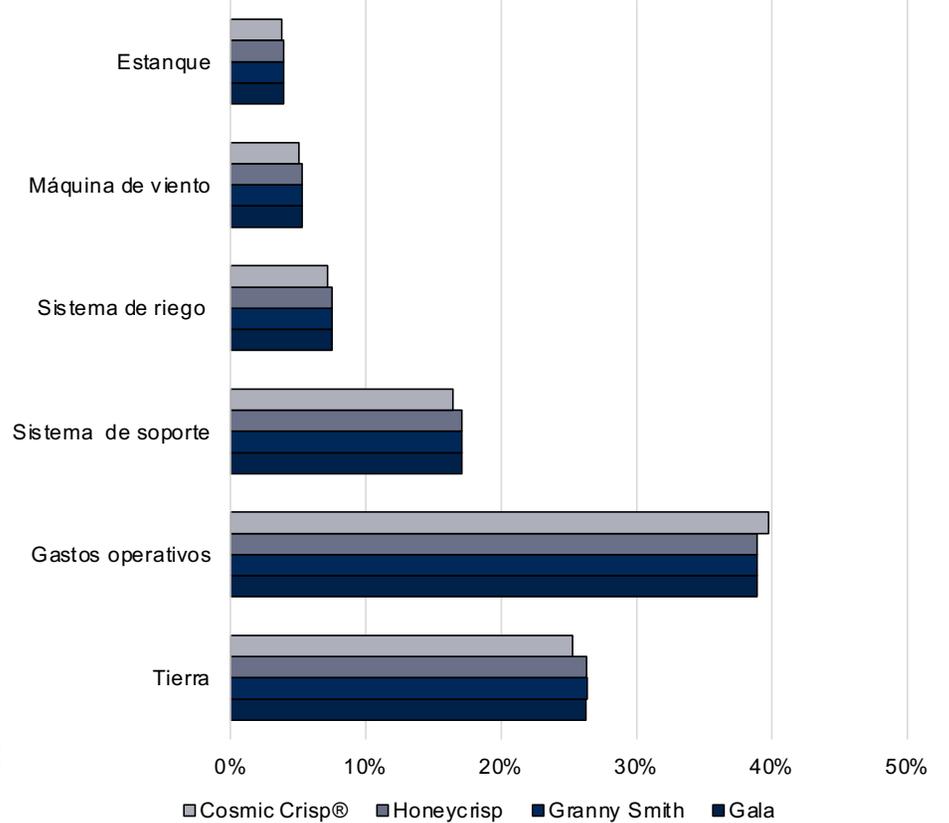


# Capital Requerido-Manzana 2024

Sistema vertical

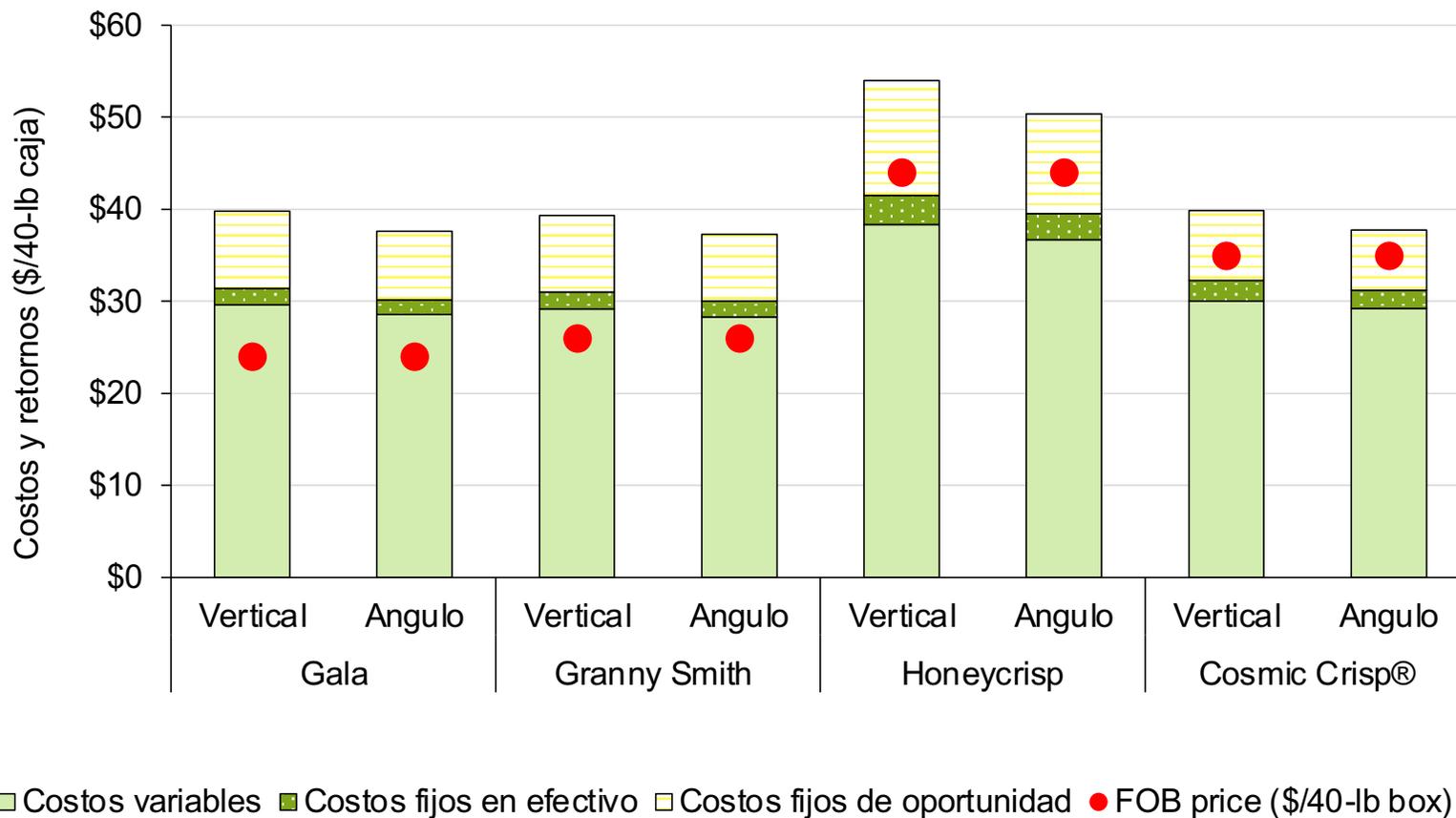


Sistema en ángulo



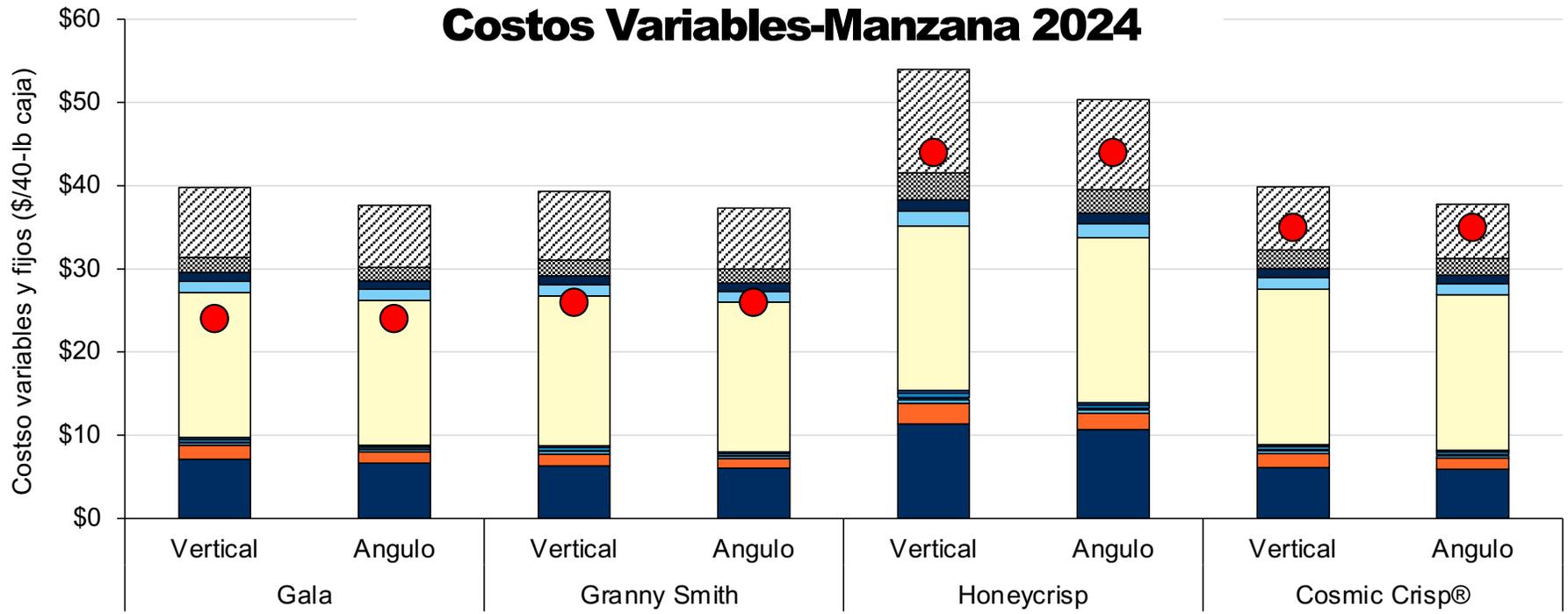


# Rentabilidad vs. Costos-Manzana 2024





## Costos Variables-Manzana 2024



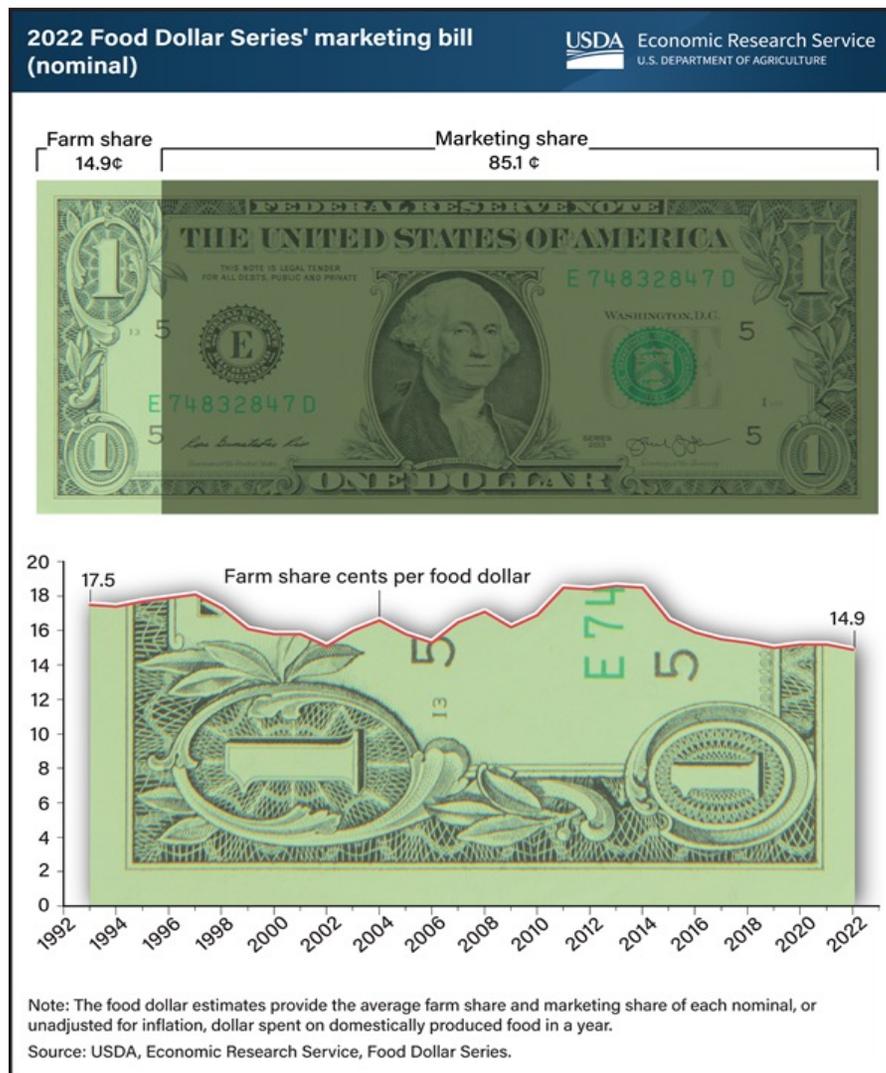
- Mano de obra (cosecha, poda, deshoje, riego, general)
- Químicos y fertilizantes
- Riego-agua y cargo eléctrico
- Protección contra el sol-Malla
- Colmenas
- Mantenimiento y reparación
- Combustible y lubricante
- Costos de empaque
- Gastos generales (5% costos variables)
- Intereses (5% costos variables)
- Costos fijos en efectivo
- Costos fijos de oportunidad
- FOB price (\$/40-lb box)



# ¿Sabías que?

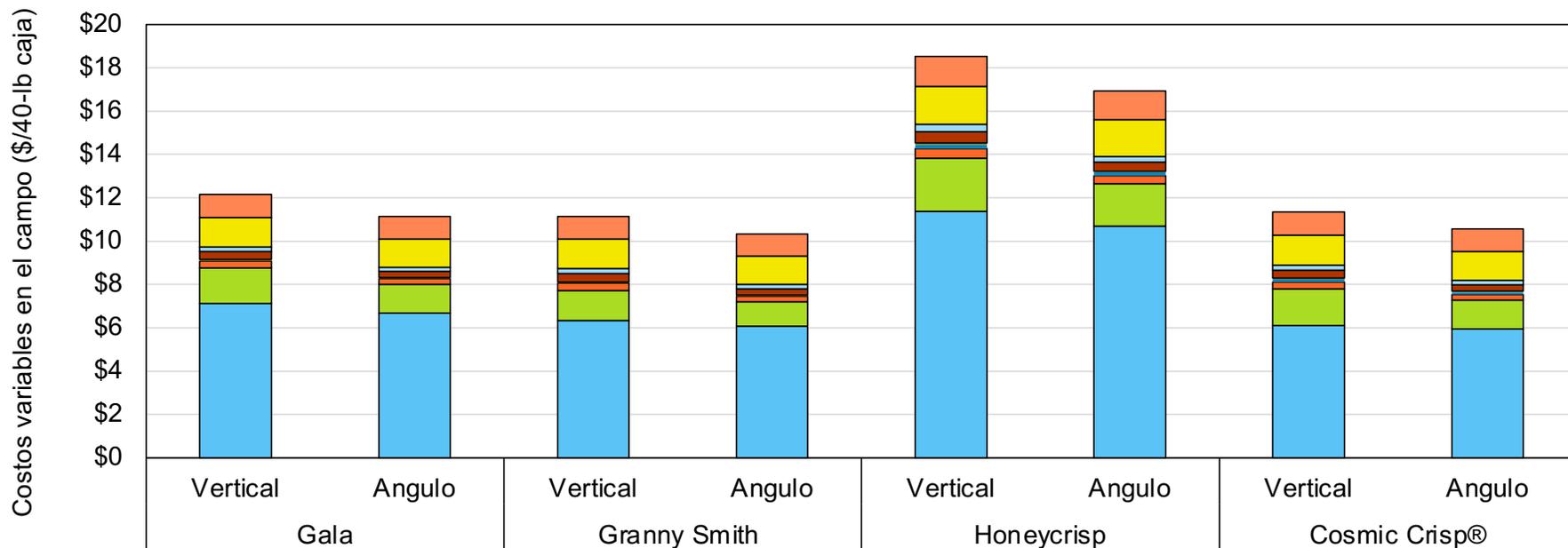
- El agricultor recibe el precio residual de toda la cadena de mercadeo.
- Por cada dólar que uno paga por alimento:
  - **15 centavos** van para el agricultor
  - **85 centavos** se quedan en la cadena de mercadeo.

**Fuente:** Departamento de Agricultura de EEUU. 2022.





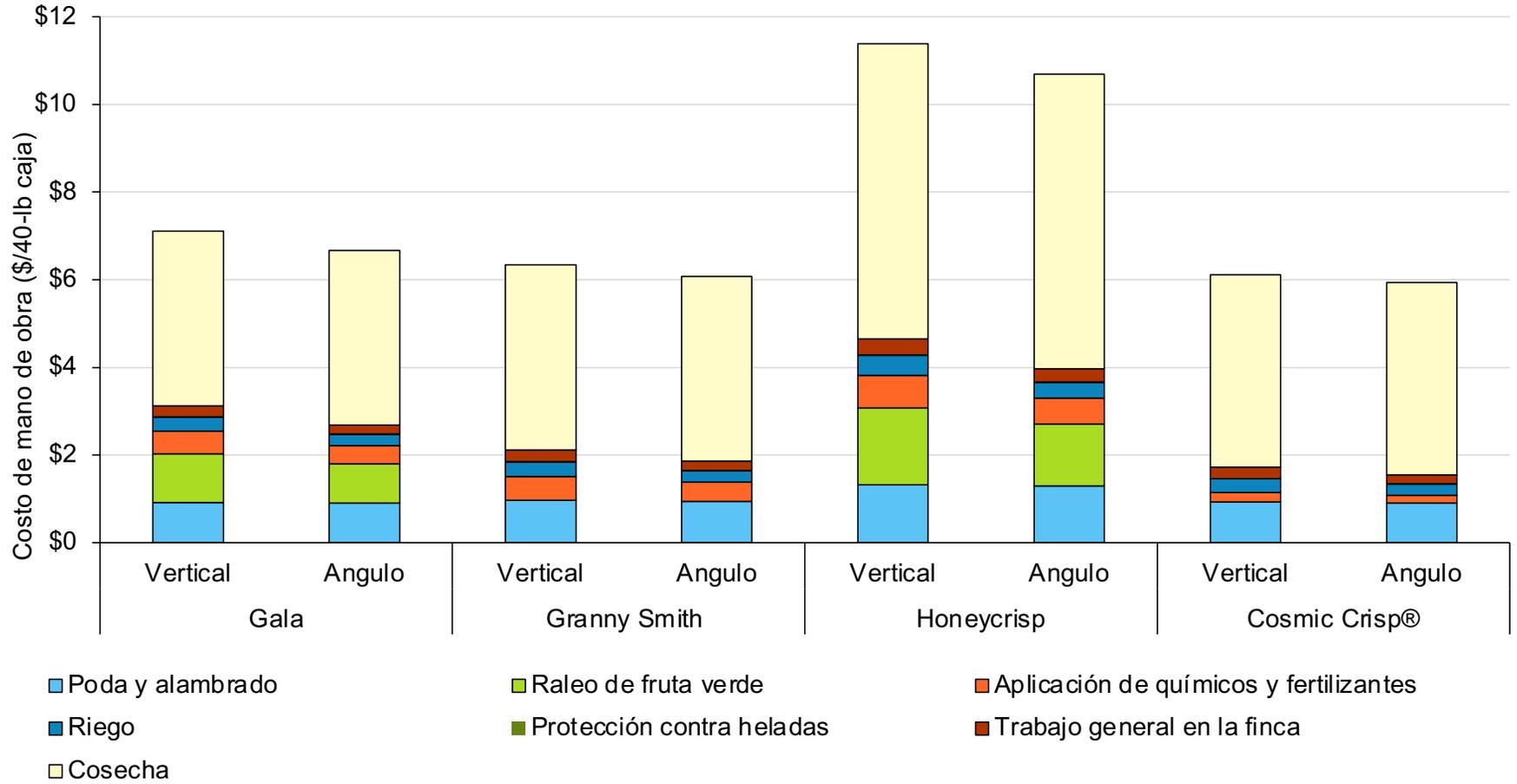
## Costos Variables en el Campo-Manzana 2024



- Mano de obra (cosecha, poda, deshoje, riego, general)
- Riego-agua y cargo eléctrico
- Colmenas
- Combustible y lubricante
- Intereses (5% costos variables)
- Químicos y fertilizantes
- Protección contra el sol-Malla
- Mantenimiento y reparación
- Gastos generales (5% costos variables)

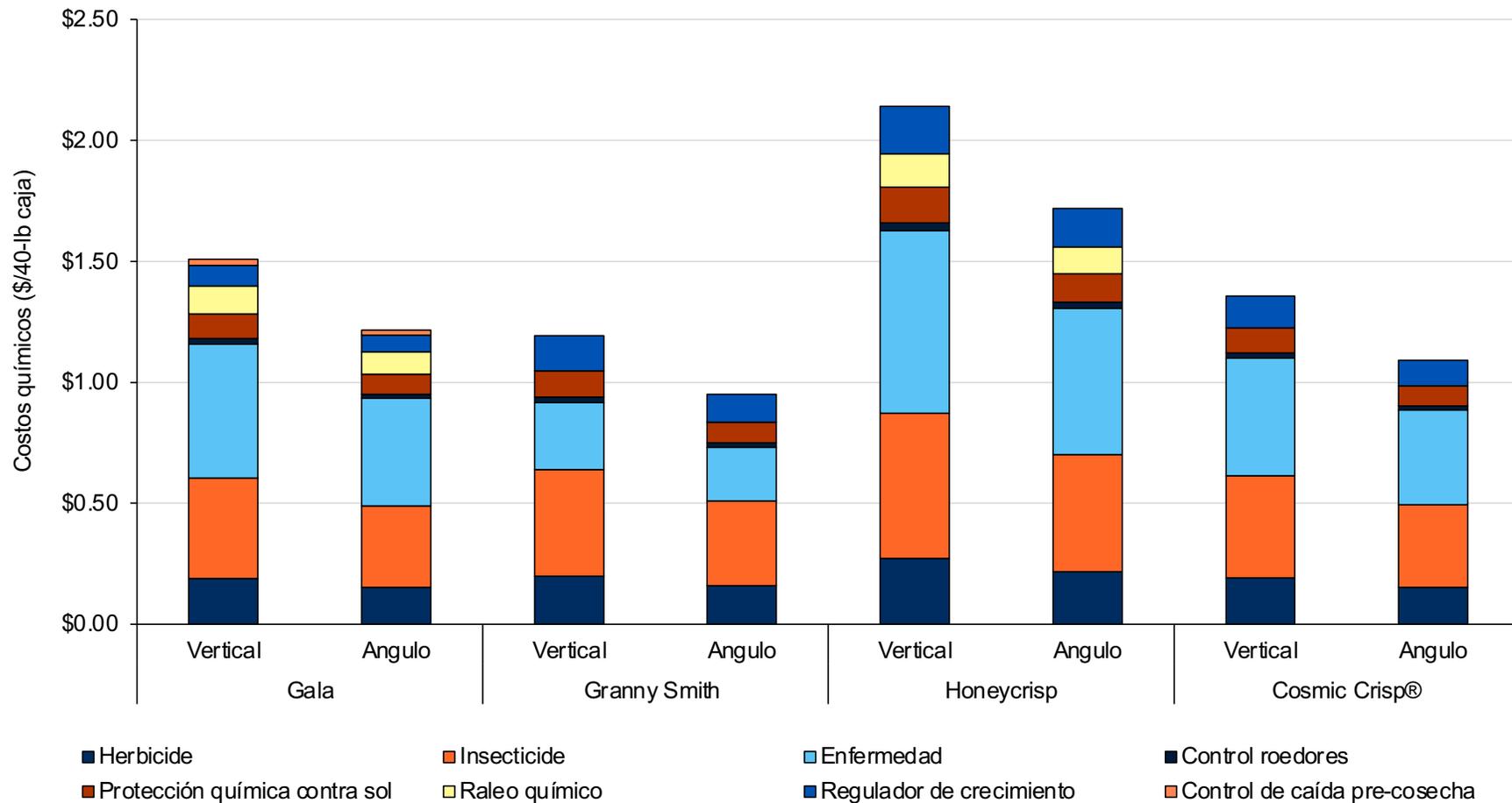


## Costos de Mano de Obra en el Campo-Manzana 2024



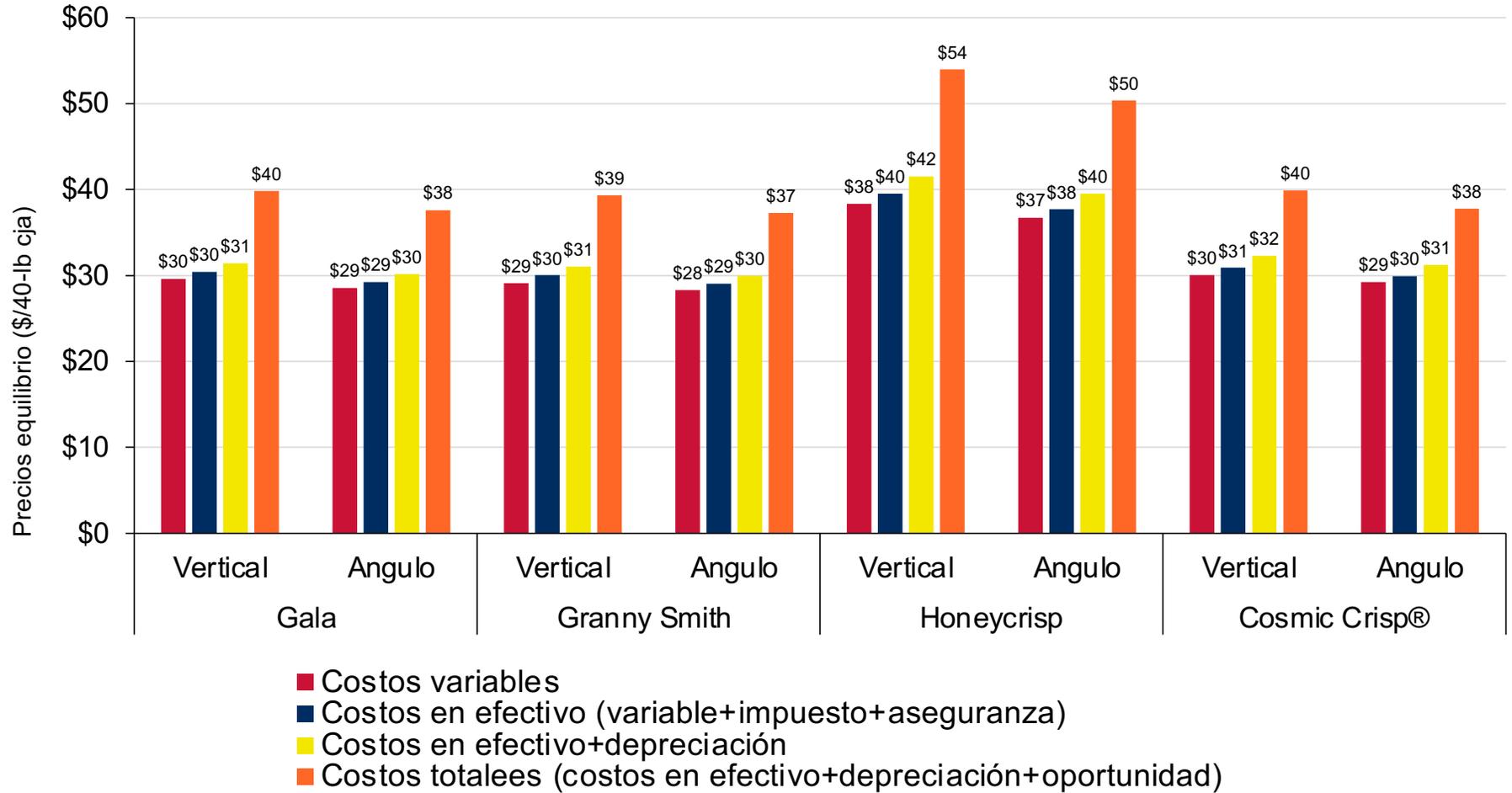


## Costos de Químicos en el Campo-Manzana 2024





# Precios Equilibrio-Manzana 2024





# Conclusiones

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- La rentabilidad de la manzana depende del precio que se le pague al agricultor.
  - El precio como mínimo debe ser de \$30/caja 40-lb
- Costos de empacado: El agricultor recibe el precio residual.
  - Por cada dólar que el consumidor paga, 15 centavos van al agricultor.
- En el campo: El costo mas elevado es mano de obra-en promedio 60%.

# Muchas gracias

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¿Quieres saber mas sobre la economía de arboles  
frutales?

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