



# GEM FORUM

DECEMBER 20, 2022



- GEM history
- GEM production
- Hass/GEM comparison
- Retail promotions
- Discussion with participating packers
- Q & A



- Variety developed through Dr. Bergh's program at UCR
- Dr. Bergh retired in the early 90s
- Grey E. Martin, a staff research associate, recognized a Gwen seedling at Field 3, Row 29, Tree 5
- Martin submitted Declaration of Invention in 1998
- U.S. patent released on October 14, 2003, as '3-29-5'
- '3-29-05' available for commercial propagation shortly after, commonly known as "GEM"



# FROM THE PATENT

A new and distinct variety of *Persea americana* plant having the following combination of characteristics:

- a) exhibits a vigorous moderately-spreading upright growth habit,
- b) is less alternative bearing than the 'Hass' variety (non-patented in the United States) and fruits well every year,
- c) forms ellipsoid-shaped generally black-skinned fruit that is well distributed around the tree which lacks shoulders, commonly is larger than that of the 'Hass' variety, and matures at approximately the same time as the fruit of the 'Hass' variety having yellow-green flesh of excellent eating quality that is free of obvious fibers,
- d) forms leaves in greater quantity than the 'Hass' variety that are similar in appearance to those of the 'Hass' variety, and
- e) displays moderate resistance to the *Persea* mite

# PRODUCTION





# GEM TREE SALES

|      |                         |
|------|-------------------------|
| 2019 | 52,957 trees            |
| 2020 | 77,424 trees            |
| 2021 | <u>100,757 trees</u>    |
|      | 231,138 Planted 2019-21 |
| 2022 | 49,960 trees            |
| 2023 | 86,000 trees            |
| 2024 | <u>104,000 trees</u>    |
|      | 239,960 Ordered 2022-24 |



# GEMS POUNDS SHIPPED

| Grade / Size        | 2018           | 2019           | 2020             | 2021*            |
|---------------------|----------------|----------------|------------------|------------------|
| <b>Conventional</b> | <b>545,675</b> | <b>808,200</b> | <b>1,319,925</b> | <b>2,421,525</b> |
| <b>#1</b>           | <b>420,700</b> | <b>756,600</b> | <b>1,181,175</b> | <b>2,141,975</b> |
| 24                  |                | 5,500          | 2,475            | 1,600            |
| 28                  | 52,200         | 36,950         | 146,125          | 209,900          |
| 32                  | 93,825         | 75,600         | 241,425          | 360,925          |
| 36                  | 93,675         | 56,725         | 281,175          | 426,550          |
| 40                  | 93,875         | 180,125        | 281,150          | 487,850          |
| 48                  | 68,750         | 375,850        | 196,550          | 500,625          |
| 60                  | 14,325         | 17,525         | 24,275           | 118,675          |
| 70                  | 3,100          | 5,475          | 5,550            | 23,450           |
| 84                  | 950            | 2,850          | 2,225            | 11,550           |
| 96                  |                |                | 225              | 850              |
| <b>#2</b>           | <b>124,975</b> | <b>51,600</b>  | <b>138,750</b>   | <b>279,550</b>   |
| 24                  |                |                |                  | 375              |
| 28                  | 15,400         | 3,100          | 125              | 40,250           |
| 32                  | 31,400         | 13,550         | 10,875           | 44,050           |
| 36                  | 29,750         | 7,700          | 20,700           | 57,800           |
| 40                  | 23,325         | 11,475         | 42,650           | 56,550           |
| 48                  | 18,750         | 15,425         | 30,600           | 48,675           |
| 60                  | 4,500          | 200            | 25,800           | 23,825           |
| 70                  | 1,475          | 100            | 6,400            | 4,225            |
| 84                  | 375            | 50             | 1,600            | 3,800            |



# SIZE CURVE

## California Avocado Commission AMRIC California Avocado Shipments by Variety (Type/Grade/Size)

| Type         | Grade       | Size        | % of Variety |          |           |          |           |          |           |          |           |          |      |
|--------------|-------------|-------------|--------------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|------|
|              |             |             | 2018 Hass    | 2018 GEM | 2019 Hass | 2019 GEM | 2020 Hass | 2020 GEM | 2021 Hass | 2021 GEM | 2022 Hass | 2022 GEM |      |
| Conventional | #1          | 20          | 0.0%         | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0% |
|              |             | 24          | 0.0%         | 0.0%     | 0.0%      | 0.7%     | 0.0%      | 0.2%     | 0.0%      | 0.1%     | 0.0%      | 0.2%     |      |
|              |             | 28          | 0.0%         | 9.6%     | 0.0%      | 4.4%     | 0.1%      | 11.1%    | 0.0%      | 8.8%     | 0.0%      | 5.8%     |      |
|              |             | 32          | 1.1%         | 17.2%    | 2.0%      | 9.1%     | 2.7%      | 18.3%    | 1.2%      | 15.0%    | 0.6%      | 11.4%    |      |
|              |             | 36          | 2.4%         | 17.2%    | 4.2%      | 6.8%     | 3.4%      | 21.3%    | 2.2%      | 17.6%    | 1.2%      | 13.9%    |      |
|              |             | 40          | 6.7%         | 17.2%    | 9.0%      | 21.6%    | 9.1%      | 21.3%    | 6.9%      | 20.1%    | 4.6%      | 17.2%    |      |
|              |             | 48          | 29.0%        | 12.6%    | 33.1%     | 45.1%    | 31.2%     | 14.9%    | 29.4%     | 20.6%    | 23.8%     | 25.9%    |      |
|              |             | 60          | 22.9%        | 2.6%     | 20.8%     | 2.1%     | 21.3%     | 1.8%     | 23.7%     | 4.9%     | 24.9%     | 5.5%     |      |
|              |             | 70          | 13.2%        | 0.6%     | 10.1%     | 0.7%     | 10.6%     | 0.4%     | 13.4%     | 1.0%     | 17.5%     | 1.3%     |      |
|              |             | 84          | 6.5%         | 0.2%     | 4.6%      | 0.3%     | 5.0%      | 0.2%     | 6.6%      | 0.5%     | 9.7%      | 0.4%     |      |
|              |             | 96          | 1.5%         | 0.0%     | 1.1%      | 0.0%     | 1.0%      | 0.0%     | 1.4%      | 0.0%     | 1.8%      | 2.2%     |      |
|              |             | Grade Total | 83.3%        | 77.1%    | 84.9%     | 90.7%    | 84.5%     | 89.5%    | 84.8%     | 88.5%    | 84.0%     | 83.8%    |      |
|              |             | #2          | 20           | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0% |
|              | 24          |             | 0.0%         | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     | 0.0%      | 0.0%     |      |
|              | 28          |             | 0.0%         | 2.8%     | 0.0%      | 0.4%     | 0.0%      | 0.8%     | 0.0%      | 1.7%     | 0.0%      | 0.4%     |      |
|              | 32          |             | 0.1%         | 5.8%     | 0.1%      | 1.6%     | 0.2%      | 1.6%     | 0.1%      | 1.8%     | 0.0%      | 1.5%     |      |
|              | 36          |             | 0.2%         | 5.5%     | 0.2%      | 0.9%     | 0.2%      | 3.2%     | 0.2%      | 2.4%     | 0.1%      | 1.9%     |      |
|              | 40          |             | 0.5%         | 4.3%     | 0.5%      | 1.4%     | 0.6%      | 2.3%     | 0.4%      | 2.3%     | 0.3%      | 2.8%     |      |
|              | 48          |             | 2.7%         | 3.4%     | 2.0%      | 1.8%     | 2.2%      | 2.0%     | 2.4%      | 2.0%     | 1.8%      | 3.2%     |      |
|              | 60          |             | 2.3%         | 0.8%     | 1.5%      | 0.0%     | 1.9%      | 0.5%     | 2.4%      | 1.0%     | 2.2%      | 0.9%     |      |
|              | 70          |             | 1.6%         | 0.3%     | 0.8%      | 0.0%     | 1.0%      | 0.1%     | 1.6%      | 0.2%     | 2.0%      | 0.2%     |      |
|              | 84          |             | 0.8%         | 0.1%     | 0.3%      | 0.0%     | 0.5%      | 0.0%     | 0.7%      | 0.2%     | 1.0%      | 0.1%     |      |
|              | 96          |             | 0.1%         | 0.0%     | 0.0%      | 0.0%     | 0.1%      | 0.0%     | 0.0%      | 1.5%     | 0.0%      | 1.5%     |      |
|              | Grade Total | 8.3%        | 22.9%        | 5.5%     | 6.2%      | 6.7%     | 10.5%     | 7.8%     | 11.5%     | 7.5%     | 10.9%     |          |      |





## Comparison of 2021/2022 Hass & 2022 GEM production

|                                 | 2021        |           | 2022        |           |
|---------------------------------|-------------|-----------|-------------|-----------|
|                                 | Hass        | GEM       | Hass        | GEM       |
| Pounds:                         | 254,362,795 | 2,499,939 | 256,083,487 | 4,995,433 |
| Bearing Acres:                  | 45,000      | 287       | 45,000      | 628       |
| Average pounds per acre:        | 5,653       | 8,711     | 5,691       | 7,955     |
| GEM average % yield above Hass: |             | 54%       |             | 40%       |



# POUNDS & DOLLARS BY VARIETY

November 2020 Through October 2021

## CALIFORNIA AVOCADO COMMISSION POUNDS & DOLLARS BY VARIETY

November 2020 Through October 2021

| Month                      | Hass Pounds        | Lamb Pounds       | Gem Pounds       | Others Pounds    | Total Pounds       | Hass Dollars         | Lamb Dollars        | Gem Dollars        | Others Dollars     | Total Dollars        | Avg \$/Lb      |
|----------------------------|--------------------|-------------------|------------------|------------------|--------------------|----------------------|---------------------|--------------------|--------------------|----------------------|----------------|
| Nov 2020                   | 5,977,035          | 1,567             | 0                | 24,345           | 6,002,947          | \$4,620,733          | \$3,821             | \$                 | \$21,353           | \$4,645,907          | \$0.774        |
| Dec 2020                   | 3,476,394          | 51                | 0                | 94,434           | 3,570,879          | \$2,539,032          | \$203               | \$                 | \$54,342           | \$2,593,577          | \$0.726        |
| Jan 2021                   | 884,650            |                   | 0                | 39,095           | 923,745            | \$438,382            | 0                   | \$                 | \$25,474           | \$463,856            | \$0.502        |
| <b>1st QTR</b>             | <b>10,338,079</b>  | <b>1,618</b>      | <b>0</b>         | <b>157,874</b>   | <b>10,497,571</b>  | <b>\$7,598,147</b>   | <b>\$4,024</b>      | <b>0</b>           | <b>\$101,169</b>   | <b>\$7,703,340</b>   | <b>\$0.734</b> |
| Feb 2021                   | 5,692,407          |                   | 0                | 75,852           | 5,768,259          | \$5,481,457          | 0                   | \$                 | \$35,721           | \$5,517,178          | \$0.956        |
| Mar 2021                   | 23,588,570         |                   | 87,218           | 33,952           | 23,709,740         | \$29,024,828         | 0                   | \$115,019          | \$20,061           | \$29,159,908         | \$1.230        |
| Apr 2021                   | 46,595,937         | 637               | 824,926          | 554,068          | 47,975,568         | \$56,227,241         | 0                   | \$1,033,152        | \$667,781          | \$57,928,174         | \$1.207        |
| <b>2nd QTR</b>             | <b>75,876,914</b>  | <b>637</b>        | <b>912,144</b>   | <b>663,872</b>   | <b>77,453,567</b>  | <b>\$90,733,526</b>  | <b>0</b>            | <b>\$1,148,171</b> | <b>\$723,563</b>   | <b>\$92,605,260</b>  | <b>\$1.196</b> |
| <b>1st Half</b>            | <b>86,214,993</b>  | <b>2,255</b>      | <b>912,144</b>   | <b>821,746</b>   | <b>87,951,138</b>  | <b>\$98,331,673</b>  | <b>\$4,024</b>      | <b>\$1,148,171</b> | <b>\$824,732</b>   | <b>\$100,308,600</b> | <b>\$1.141</b> |
| May 2021                   | 50,000,458         |                   | 1,216,612        | 20,832           | 51,237,902         | \$58,890,048         | 0                   | \$1,397,560        | \$7,261            | \$60,294,869         | \$1.177        |
| Jun 2021                   | 42,877,391         | 174,219           | 275,966          | 168,306          | 43,495,882         | \$49,043,369         | \$215,105           | \$299,742          | \$184,921          | \$49,743,137         | \$1.144        |
| Jul 2021                   | 35,516,919         | 6,342,322         | 0                | 61,832           | 41,921,073         | \$42,173,327         | \$7,266,162         | \$                 | \$74,393           | \$49,513,882         | \$1.181        |
| <b>3rd QTR</b>             | <b>128,394,768</b> | <b>6,516,541</b>  | <b>1,492,578</b> | <b>250,970</b>   | <b>136,654,857</b> | <b>\$150,106,744</b> | <b>\$7,481,267</b>  | <b>\$1,697,302</b> | <b>\$266,575</b>   | <b>\$159,551,888</b> | <b>\$1.168</b> |
| Aug 2021                   | 29,534,500         | 3,751,463         | 82,408           | 142,738          | 33,511,109         | \$43,327,333         | \$4,962,694         | \$125,506          | \$199,975          | \$48,615,508         | \$1.451        |
| Sep 2021                   | 10,223,109         | 306,720           | 12,809           | 45,713           | 10,588,351         | \$16,934,477         | \$496,238           | \$18,895           | \$75,594           | \$17,525,204         | \$1.655        |
| Oct 2021                   | 909,763            | 7,299             | 747              | 49,963           | 967,772            | \$1,504,023          | \$15,833            | \$1,262            | \$82,687           | \$1,603,805          | \$1.657        |
| <b>4th QTR</b>             | <b>40,667,372</b>  | <b>4,065,482</b>  | <b>95,964</b>    | <b>238,414</b>   | <b>45,067,232</b>  | <b>\$61,765,833</b>  | <b>\$5,474,765</b>  | <b>\$145,663</b>   | <b>\$358,256</b>   | <b>\$67,744,517</b>  | <b>\$1.503</b> |
| <b>2nd Half</b>            | <b>169,062,140</b> | <b>10,582,023</b> | <b>1,588,542</b> | <b>489,384</b>   | <b>181,722,089</b> | <b>\$211,872,577</b> | <b>\$12,956,032</b> | <b>\$1,842,965</b> | <b>\$624,831</b>   | <b>\$227,296,405</b> | <b>\$1.251</b> |
| <b>Total</b>               | <b>255,277,133</b> | <b>10,584,278</b> | <b>2,500,686</b> | <b>1,311,130</b> | <b>269,673,227</b> | <b>\$310,204,250</b> | <b>\$12,960,056</b> | <b>\$2,991,136</b> | <b>\$1,449,563</b> | <b>\$327,605,005</b> | <b>\$1.215</b> |
| Year-to-Date % of Crop     | 94.66%             | 3.92%             | .93%             | .49%             | 100.00%            | 94.69%               | 3.96%               | .91%               | .44%               | 100.00%              |                |
| Year-to-Date Average \$/lb |                    |                   |                  |                  |                    | \$1.215              | \$1.224             | \$1.196            | \$1.106            | \$1.215              |                |



# POUNDS & DOLLARS BY VARIETY

November 2021 Through October 2022

## CALIFORNIA AVOCADO COMMISSION POUNDS & DOLLARS BY VARIETY

November 2021 Through October 2022

| Month                      | Hass Pounds        | Lamb Pounds      | Gem Pounds       | Others Pounds    | Total Pounds       | Hass Dollars         | Lamb Dollars        | Gem Dollars        | Others Dollars     | Total Dollars        | Avg \$/Lb      |
|----------------------------|--------------------|------------------|------------------|------------------|--------------------|----------------------|---------------------|--------------------|--------------------|----------------------|----------------|
| Nov 2021                   | 25,432             | 3,582            | 0                | 73,789           | 102,803            | \$35,115             | \$6,113             | \$                 | \$102,366          | \$143,594            | \$1.397        |
| Dec 2021                   | 8,018              |                  | 0                | 26,052           | 34,070             | \$15,742             | 0                   | \$                 | \$20,361           | \$36,103             | \$1.060        |
| Jan 2022                   | 7,647,756          |                  | 0                | 197,244          | 7,845,000          | \$12,056,594         | 0                   | \$                 | \$132,257          | \$12,188,851         | \$1.554        |
| <b>1st QTR</b>             | <b>7,681,206</b>   | <b>3,582</b>     | <b>0</b>         | <b>297,085</b>   | <b>7,981,873</b>   | <b>\$12,107,451</b>  | <b>\$6,113</b>      | <b>0</b>           | <b>\$254,984</b>   | <b>\$12,368,548</b>  | <b>\$1.550</b> |
| Feb 2022                   | 27,609,858         |                  | 6,814            | 75,251           | 27,691,923         | \$43,637,363         | 0                   | \$3,505            | \$45,425           | \$43,686,293         | \$1.578        |
| Mar 2022                   | 32,232,723         |                  | 466,366          | 28,785           | 32,727,874         | \$49,531,316         | 0                   | \$894,602          | \$14,620           | \$50,440,538         | \$1.541        |
| Apr 2022                   | 48,477,509         | 8                | 1,846,498        | 84,069           | 50,408,084         | \$83,068,347         | \$42                | \$3,755,235        | \$137,442          | \$86,961,066         | \$1.725        |
| <b>2nd QTR</b>             | <b>108,320,090</b> | <b>8</b>         | <b>2,319,678</b> | <b>188,105</b>   | <b>110,827,881</b> | <b>\$176,237,026</b> | <b>\$42</b>         | <b>\$4,653,342</b> | <b>\$197,487</b>   | <b>\$181,087,897</b> | <b>\$1.634</b> |
| <b>1st Half</b>            | <b>116,001,296</b> | <b>3,590</b>     | <b>2,319,678</b> | <b>485,190</b>   | <b>118,809,754</b> | <b>\$188,344,477</b> | <b>\$6,155</b>      | <b>\$4,653,342</b> | <b>\$452,471</b>   | <b>\$193,456,445</b> | <b>\$1.628</b> |
| May 2022                   | 55,596,453         |                  | 1,993,131        | 2,973            | 57,592,557         | \$101,801,603        | 0                   | \$2,695,941        | \$8,312            | \$104,505,856        | \$1.815        |
| Jun 2022                   | 50,114,554         | 1,542,147        | 610,748          | 201,087          | 52,468,536         | \$105,761,623        | \$2,330,548         | \$1,305,230        | \$286,492          | \$109,683,893        | \$2.090        |
| Jul 2022                   | 27,448,377         | 5,213,097        | 57,512           | 263,874          | 32,982,860         | \$51,125,984         | \$12,558,087        | \$121,663          | \$262,049          | \$64,067,783         | \$1.942        |
| <b>3rd QTR</b>             | <b>133,159,384</b> | <b>6,755,244</b> | <b>2,661,391</b> | <b>467,934</b>   | <b>143,043,953</b> | <b>\$258,689,210</b> | <b>\$14,888,635</b> | <b>\$4,122,834</b> | <b>\$556,853</b>   | <b>\$278,257,532</b> | <b>\$1.945</b> |
| Aug 2022                   | 6,923,641          | 2,033,419        | 14,364           | 245,086          | 9,216,510          | \$7,580,970          | \$2,162,672         | \$13,002           | \$259,437          | \$10,016,081         | \$1.087        |
| Sep 2022                   | 2,953,434          | 1,003,816        | 0                | 73,122           | 4,030,372          | \$2,640,062          | \$1,079,820         | \$                 | \$108,757          | \$3,828,639          | \$0.950        |
| Oct 2022                   | 986,496            | 1,710            | 0                | 711              | 988,917            | \$817,070            | \$5,450             | \$                 | \$1,025            | \$823,545            | \$0.833        |
| <b>4th QTR</b>             | <b>10,863,571</b>  | <b>3,038,945</b> | <b>14,364</b>    | <b>318,919</b>   | <b>14,235,799</b>  | <b>\$11,038,102</b>  | <b>\$3,247,942</b>  | <b>\$13,002</b>    | <b>\$369,219</b>   | <b>\$14,668,265</b>  | <b>\$1.030</b> |
| <b>2nd Half</b>            | <b>144,022,955</b> | <b>9,794,189</b> | <b>2,675,755</b> | <b>786,853</b>   | <b>157,279,752</b> | <b>\$269,727,312</b> | <b>\$18,136,577</b> | <b>\$4,135,836</b> | <b>\$926,072</b>   | <b>\$292,925,797</b> | <b>\$1.862</b> |
| <b>Total</b>               | <b>260,024,251</b> | <b>9,797,779</b> | <b>4,995,433</b> | <b>1,272,043</b> | <b>276,089,506</b> | <b>\$458,071,789</b> | <b>\$18,142,732</b> | <b>\$8,789,178</b> | <b>\$1,378,543</b> | <b>\$486,382,242</b> | <b>\$1.762</b> |
| Year-to-Date % of Crop     | 94.18%             | 3.55%            | 1.81%            | .46%             | 100.00%            | 94.18%               | 3.73%               | 1.81%              | .28%               | 100.00%              |                |
| Year-to-Date Average \$/lb |                    |                  |                  |                  |                    | \$1.762              | \$1.852             | \$1.759            | \$1.084            | \$1.762              |                |



## 2022 CALIFORNIA AVOCADO COMMISSION GEM FOCUS

- February – April 2022, GEM Avocado crop outlook, volume and differentiation as a new variety from California is presented in all retail presentations
- Working with handlers, specific retail target accounts are outlined for CAC promotion support on GEM
- May & June targeted as peak promotion time for GEM variety avocados

## CAC MERCHANDISING APPROACH

- Target Tier 1 retailers that look for marketing unique varieties of avocados, like Fuertes, Reeds, Pinkertons, etc. and show preference for California fruit
- Create presentation slide on unique characteristics of California GEM Avocados
- Share photography on GEM Avocados to have ready for retail use in signage, ads, etc. and on the CAC website
- Develop promotion opportunities as a niche variety to support higher FOB pricing and premium image, much like the Morro Bay area that CAC supports each year
- Align with handlers so as not to pressure growers on volume available to retail



- From your perspective, what does the future of GEM production in California look like?
- What do you believe is the best go-to-market strategy on GEM?
- Currently there is one GEM PLU, is that working?
- Considering the lower volume of GEM (compared to Hass volume), are you doing anything different to promote GEM?
- Are there opportunities for growers to help promote GEM?
- With no other country having U.S. market access for GEM, does this provide a marketing advantage for California?
- What can be done to avoid any pricing discrepancy between Hass and GEM?
- Other questions?