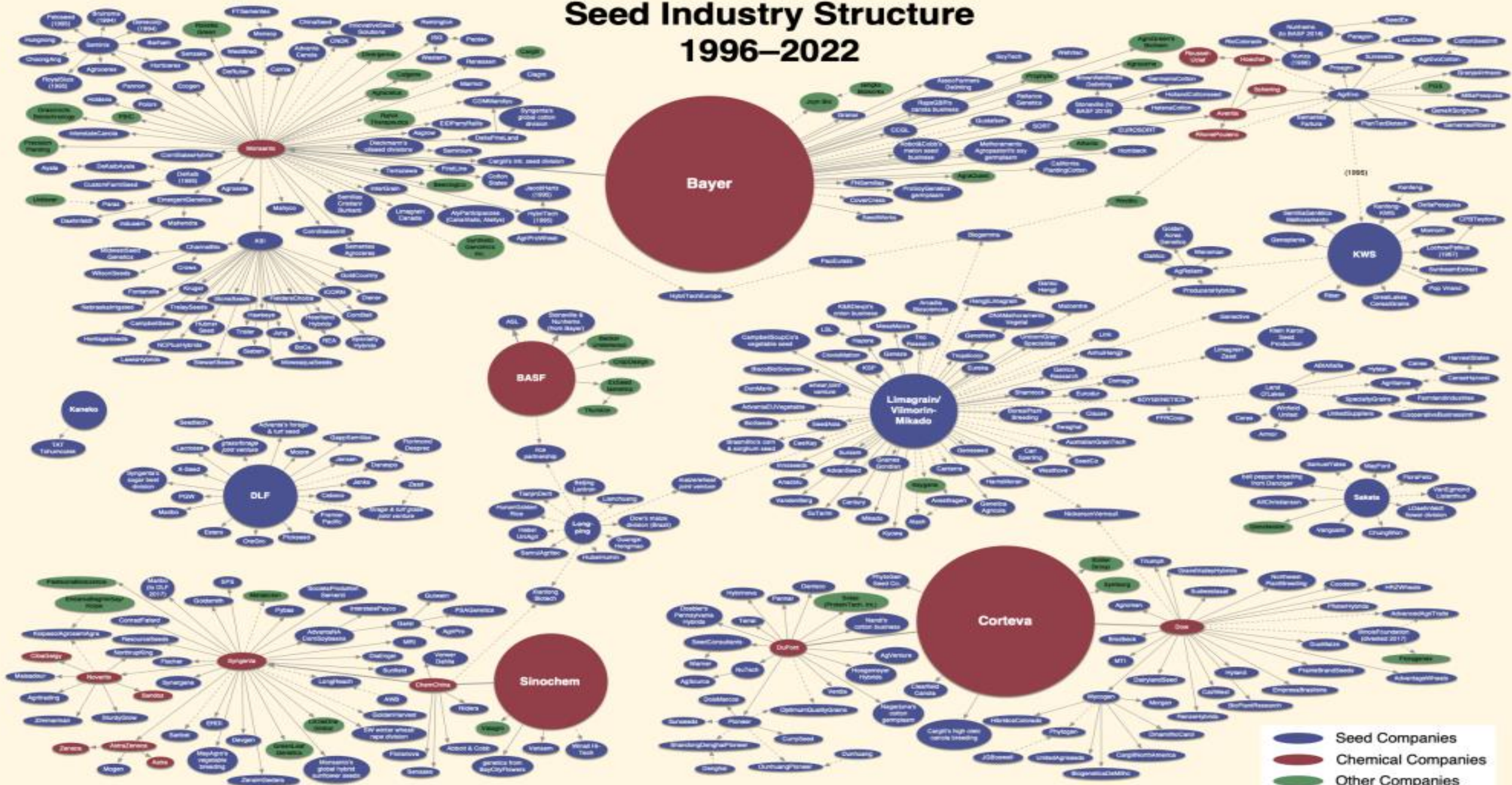


Seed Industry Structure 1996–2022



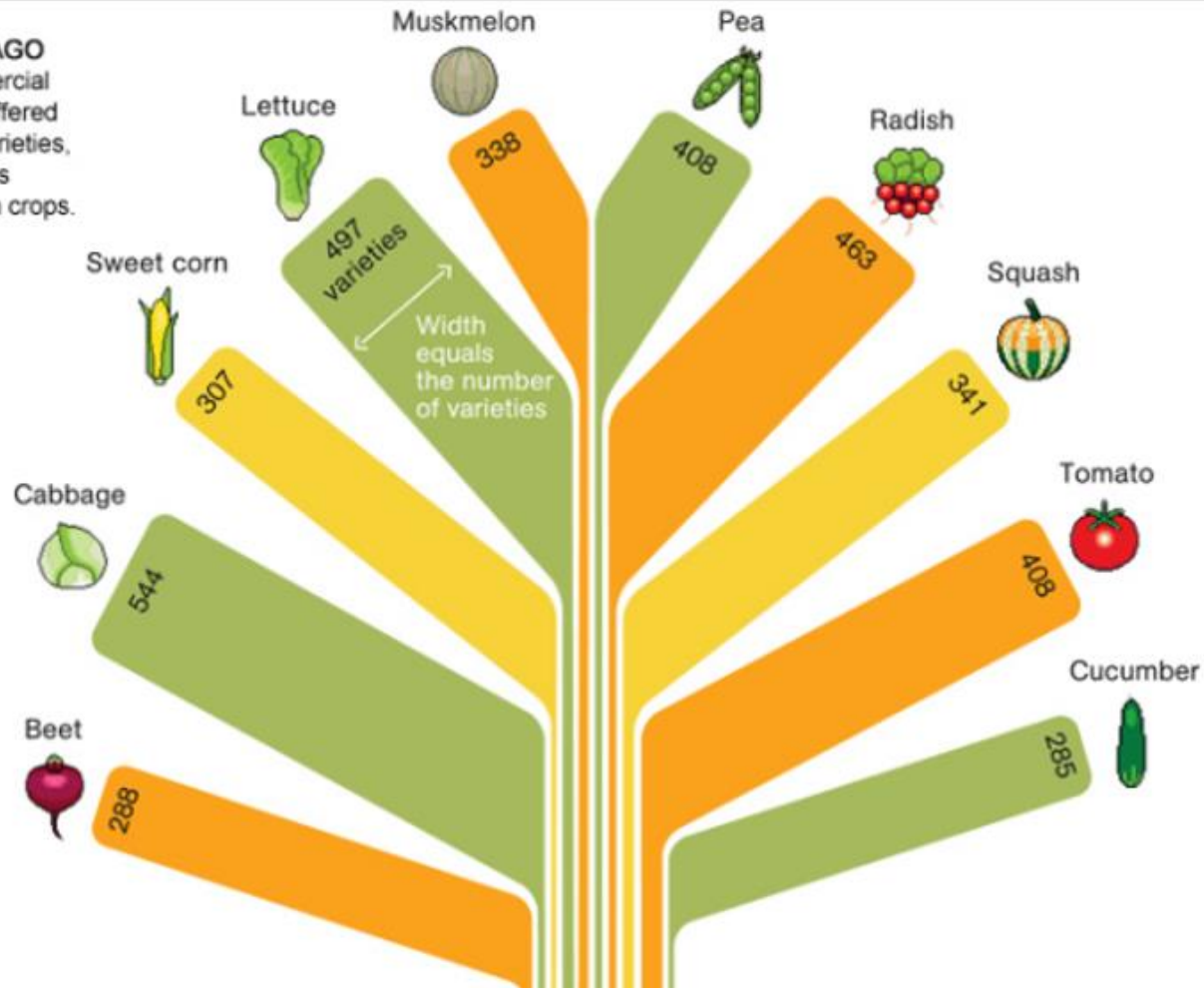
● Size proportional to global seed market share

Phil Howard, Michigan State University & Amos Strömberg, Lund University
<https://philhoward.net>

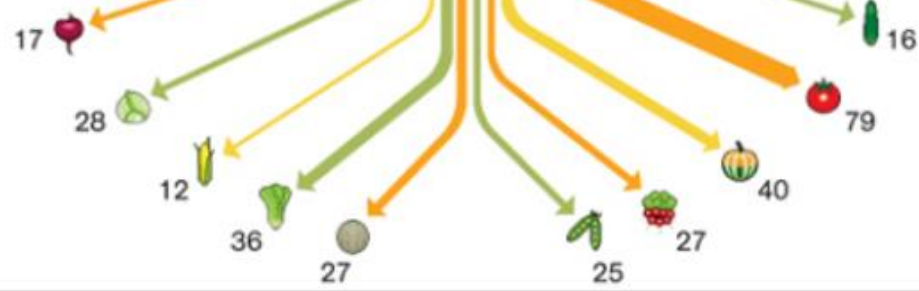
- Seed Companies
- Chemical Companies
- Other Companies
- Full Ownership
- - - Partial Ownership

A CENTURY AGO
In 1903 commercial seed houses offered hundreds of varieties, as shown in this sampling of ten crops.

1903



80 YEARS LATER
By 1983 few of those varieties were found in the National Seed Storage Laboratory.*



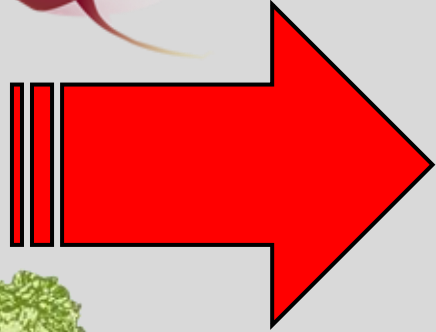
1983

In 1903, there were...



over 3,850 varieties
of these 10 common vegetables

**Over the last century,
we've lost over**

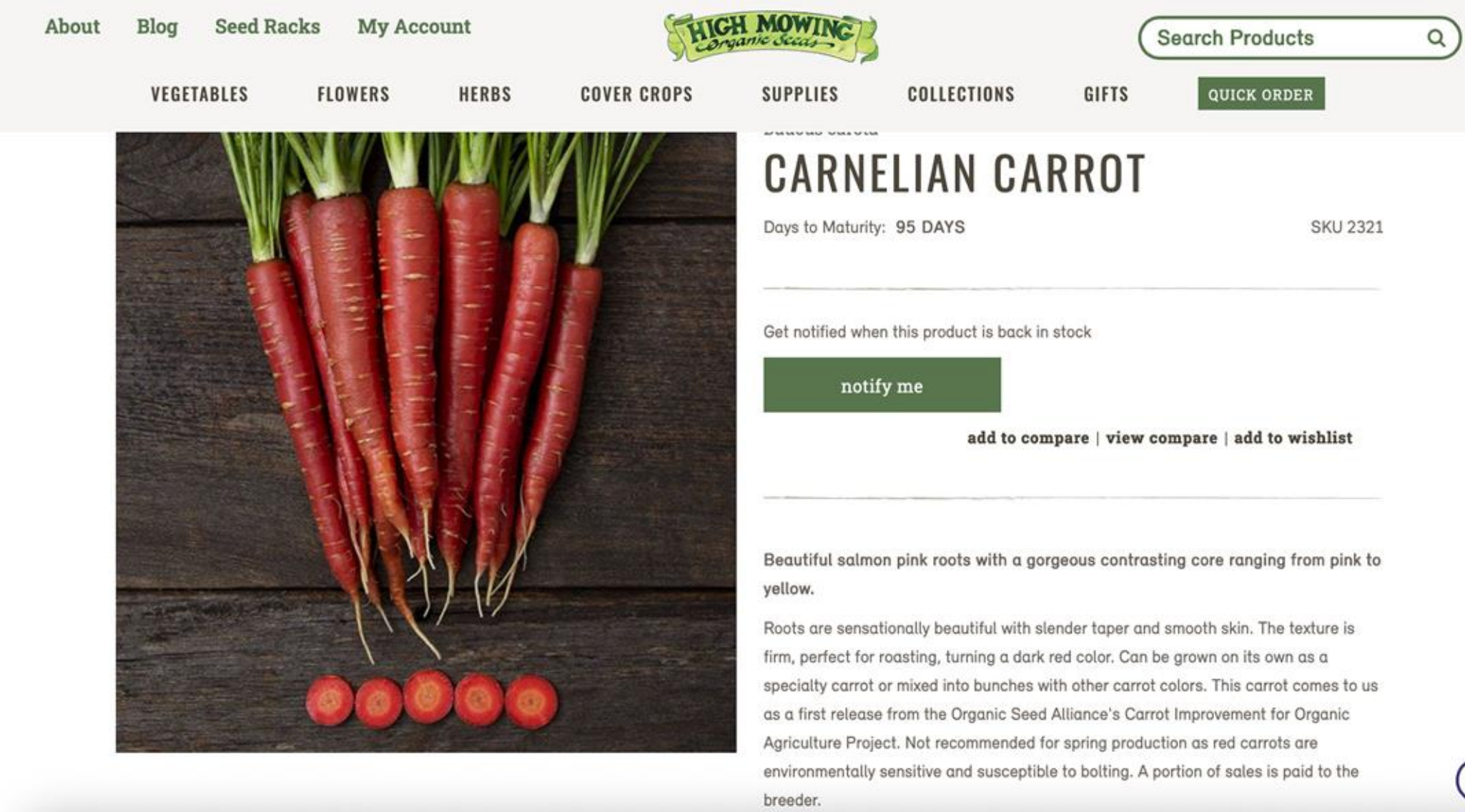


90%

of this diversity

**only 307 varieties
remain**

Participatory Plant Breeding Example: Carnelian Carrot



The image is a screenshot of the High Mowing Organic Seeds website. At the top, there is a navigation bar with links for 'About', 'Blog', 'Seed Racks', and 'My Account'. The High Mowing Organic Seeds logo is centered, and a search bar is on the right. Below the navigation bar, there are category tabs: 'VEGETABLES', 'FLOWERS', 'HERBS', 'COVER CROPS', 'SUPPLIES', 'COLLECTIONS', 'GIFTS', and a 'QUICK ORDER' button. The main content area features a large image of several whole Carnelian Carrots and a row of five sliced carrot rounds. To the right of the image, the product title 'CARNELIAN CARROT' is displayed, along with 'Days to Maturity: 95 DAYS' and 'SKU 2321'. A notification section includes the text 'Get notified when this product is back in stock' and a 'notify me' button. Below this are links for 'add to compare', 'view compare', and 'add to wishlist'. A detailed description follows, highlighting the carrot's appearance and its origin from the Organic Seed Alliance's Carrot Improvement for Organic Agriculture Project.

About Blog Seed Racks My Account

High Mowing Organic Seeds

Search Products

VEGETABLES FLOWERS HERBS COVER CROPS SUPPLIES COLLECTIONS GIFTS QUICK ORDER

CARNELIAN CARROT

Days to Maturity: 95 DAYS SKU 2321

Get notified when this product is back in stock

notify me

[add to compare](#) | [view compare](#) | [add to wishlist](#)

Beautiful salmon pink roots with a gorgeous contrasting core ranging from pink to yellow.

Roots are sensationally beautiful with slender taper and smooth skin. The texture is firm, perfect for roasting, turning a dark red color. Can be grown on its own as a specialty carrot or mixed into bunches with other carrot colors. This carrot comes to us as a first release from the Organic Seed Alliance's Carrot Improvement for Organic Agriculture Project. Not recommended for spring production as red carrots are environmentally sensitive and susceptible to bolting. A portion of sales is paid to the breeder.

“To ensure broad access, seed of the varieties we co-develop must then be multiplied and distributed. In some cases, the farmers or farmer-networks we partner with save seed of new varieties and continue to select on farm and share with other farmers in their networks. To spread the seed even further, we also partner with small- to medium- scale seed companies who sell organic and ecologically grown seed. These companies help spread access by increasing the quantity of seed available and by distributing it through regional and national sales. We never patent the varieties we develop, so anyone is free to save seed and continue selecting or breeding new varieties. The companies we partner with share a percent of their profits with our research program to support our ability to continue expanding our participatory plant breeding and steward the varieties we’ve co-developed into the future. Seed companies can get involved by participating in variety trials of up-and-coming new varieties from our research program. We strive to inclusively invite a wide diversity of companies to participate in our annual trials and communicate with us about interest in collaborating in sales.”

*From “New Organically Bred, Colorful Varieties Ready for Spring Gardens”
Organic Seed Alliance Article December 20, 2022*