



# Consumer-driven plant variety development

Looking to breed new plant varieties preferred by growers and consumers alike? Interested in bringing new varieties to market to mitigate risks associated with pests, diseases, climate change and rising costs? Vineland's Plant Variety Development team can help.

Plant variety development is a multi-year growing cycle process used to produce preferred varieties. As a result, it can require a significant commitment of time, resources and risks where the resulting product from this multi-year process may not meet the needs of producers and consumers.

## How does it work? Our advantage:

Vineland can help reduce your risk by infusing data for informed decision-making that can both minimize time to market and result in more success with consumers. We're unique in that we house multi-disciplinary research services all in one location. Our specialized team offers a suite of services, including consumer and market assessments, genomics, agronomic and biochemical sciences, to help guide your breeding program at the start of your development cycle.

## Vineland's variety development process

Determine your  
plant variety need

Plant breeding  
selections

Product validation:  
testing and trialling

**Product launch**

### Step 1: Determine your plant variety need

It's all about meeting your needs! Vineland can work with you to position your products for marketplace success. Using our expertise in understanding flavour profiles, consumer preferences and market intelligence data, Vineland can help you determine the precise needs of your customers and what they expect from a product. This information can then be used to drive the development of new varieties with a clear definition of what is a successful product. This can help you better understand product opportunities based on consumer acceptance. Market insights data can further inform your products within the marketplace focusing on the pathway to commercialization, competitive scans and market opportunities.

These services can provide information to help drive your plant variety development at the beginning of your development cycle.



## Step 2: Make plant breeding selections

What are your plant variety objectives? Choose one or multiple services that best meet the outcomes you're looking for with respect to your varietal needs.



**Agronomic evaluation** - This analysis focuses on a number of factors including yield, disease resistance, pest tolerance and overall climate adaptation.



**Biochemical and genomic attributes** - This analysis can ensure that important traits are present in your varieties and also determine the levels of key compounds such as sugars, aroma volatiles or other important secondary metabolites.



**Sensory profiles and consumer acceptance evaluations** - Our research scientists work directly with consumers to determine preferences relating to taste, texture or aesthetics. In addition, Vineland's trained sensory panel will create flavour profiles for each product to further define preferences and enable selection of plant varieties that meet your breeding goals.

## Step 3: Product validation: trialling and testing

How can we determine product success? By trialling your new product with growers and testing with consumers.

- **Trialling with growers** - We can do multi-site evaluations to test your product's consistency in different growing zones and locations or in varying environmental conditions.
- **Testing with consumers** - We are able to conduct on-location product testing with consumers to determine how receptive they are to your product, branding or marketing and compare against industry benchmarks.

### Vineland's successes

- ✓ Cold Snap™ pear
- ✓ Radiance sweet potato
- ✓ Vineland's 49th Parallel Collection of roses
- ✓ Regionally-adapted greenhouse tomato-on-the-vine varieties
- ✓ Climate-adapted and consumer-preferred apples

## Step 4: Product launch

Utilize some of these services or all! Vineland's team has the knowledge and experience to help with your variety development goals and to assist in identifying partners along the entire supply chain to bring your product to market.

## Looking for more information?

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