



## Crop Target Questions

### 1. What crop(s) are you currently breeding? Please check all that apply.

- |   |  |
|---|--|
| <input type="checkbox"/> Strawberry             | <input type="checkbox"/> Plum Scion        |
| <input type="checkbox"/> Apple Scion            | <input type="checkbox"/> Plum Rootstock    |
| <input type="checkbox"/> Apple Rootstock        | <input type="checkbox"/> Apricot Scion     |
| <input type="checkbox"/> Pear Scion             | <input type="checkbox"/> Apricot Rootstock |
| <input type="checkbox"/> Pear Rootstock         | <input type="checkbox"/> Almond Scion      |
| <input type="checkbox"/> Tart Cherry Scion      | <input type="checkbox"/> Almond Rootstock  |
| <input type="checkbox"/> Tart Cherry Rootstock  | <input type="checkbox"/> Blackberry        |
| <input type="checkbox"/> Sweet Cherry Scion     | <input type="checkbox"/> Red Raspberry     |
| <input type="checkbox"/> Sweet Cherry Rootstock | <input type="checkbox"/> Black Raspberry   |
| <input type="checkbox"/> Peach Scion            | <input type="checkbox"/> Rose              |
| <input type="checkbox"/> Peach Rootstock        |  |

### 2. What are the target production region(s)? E.g., U.S. Pacific Northwest

## SCALE OF OPERATIONS

3. How many years have you worked as a breeder?

4. What type of organization are you working at as a breeder?

- ☐ Private sector
- ☐ University
- ☐ Federal
- ☐ Other, please specify:

5. In 2009, how many full-time equivalent staff (breeders, scientific assistants, non-scientific staff) worked on your program?

Breeders (excluding yourself)	<input type="text"/>
Scientific assistants	<input type="text"/>
Non-scientific staff	<input type="text"/>
Graduate students	<input type="text"/>
Post-doc	<input type="text"/>
Other, please specify:	<input type="text"/>

SETTING PRIORITIES

6. Using the scale bars, please rate on a 0-10 scale the importance of INTERESTED PARTIES that influence your

**setting of priorities when selecting a trait for inclusion in your breeding program (0=very unimportant, 10=very important). For each row, put the cursor at the number you think that best matches your rating and left click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

	Very Unimportant						Very Important				
	0	1	2	3	4	5	6	7	8	9	10
Producers' needs											
Wholesalers' needs											
Consumers' needs/preferences											
Nursery feedback											
Funding agency											
Own experience											
Experiences of colleagues/other breeders											
Intended use of the crop											
Marketers' feedback											
Retailers' feedback											
Available premiums											
Other, please specify: <input type="text"/>											
Other, please specify: <input type="text"/>											

**7. Using the scale bars, please rate on a 0-10 scale the importance of TECHNICAL CONSIDERATIONS that influence your setting of priorities when selecting a trait for inclusion in your breeding program (0=very**

unimportant, 10=very important). Put the cursor at the number you think that best matches your rating and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Very Unimportant						Very Important				
	0	1	2	3	4	5	6	7	8	9	10
Environmental effects on trait expression											
Availability of genetic variation for the trait											
Availability of resources											
Availability of expertise											
Previous research done by others/publications											
Other, please specify: <input type="text"/>											
Other, please specify: <input type="text"/>											

#### 8. How frequently do you interact with the following interested parties?

		Weekly	Monthly	Every three months	Every six months	Once a year	Not applicable
Producers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wholesalers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consumers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Retailers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nurseries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Weekly	Monthly	Every three months	Every six months	Once a year	Not applicable
Funding agencies		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Colleagues/other breeders		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketers		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify: <input type="text"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify: <input type="text"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please specify: <input type="text"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

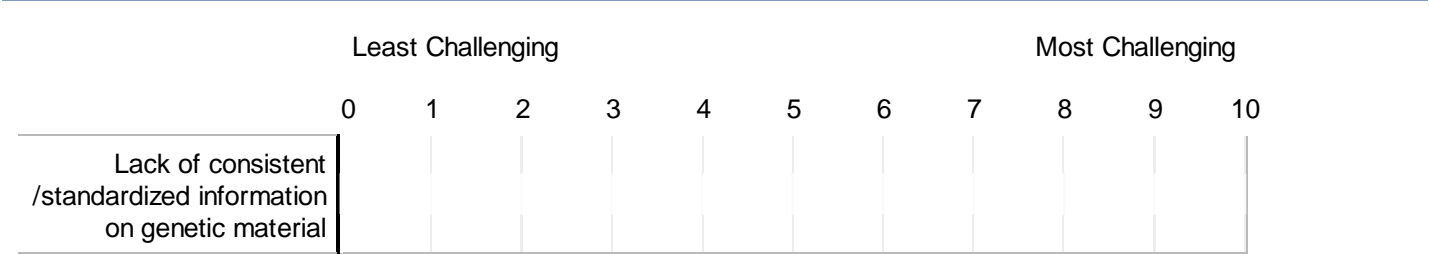
**9A. Which other breeders and breeding programs most influence your breeding work? Please check all that apply.**

- ☐ Domestic public breeders of the crop(s) you work on
- ☐ Domestic public breeders of other crops
- ☐ Domestic private breeders of the crop(s) you work on
- ☐ Domestic private breeders of other crops
- ☐ Foreign public breeders of the crop(s) you work on
- ☐ Foreign public breeders of other crops
- ☐ Foreign private breeders of the crop(s) you work on
- ☐ Foreign private breeders of other crops
- ☐ Other, please specify:

**9B. How do you interact with the interested parties who influence your breeding priorities? Please check all that apply.**

- ☐ Formal conversations, e.g., presentations to industry
- ☐ Informal conversations
- ☐ Field days for industry groups
- ☐ Through cooperative extension agents
- ☐ Through my OWN industry advisory panel
- ☐ Through my OWN consumer advisory panel
- ☐ Cooperators who have test plots
- ☐ Other, please specify:
- ☐ Other, please specify:
- ☐ Other, please specify:

**10. Using the scale bars, please rate on a 0-10 scale the challenges you face when DETERMINING your priorities (10=most challenging and 0=least challenging). Put the cursor at the number you think that best matches your rating and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**



	Least Challenging						Most Challenging				
	0	1	2	3	4	5	6	7	8	9	10
Lack of genetic material											
Lack of consistent/standardized information on methods											
Poor communication with interested parties											
Separate short-term from long-term needs											
Difficult to find consensus across interested parties											
Uncertainty if variety being developed would be commercially viable											
Other, please specify:											

11. Using the scale bars, please rate on a 0-10 scale the challenges you face when IMPLEMENTING your priorities (10=most challenging and 0=least challenging). Put the cursor at the number you think that best matches your rating and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Least Challenging						Most Challenging				
	0	1	2	3	4	5	6	7	8	9	10
Funding availability											
Labor/staff availability											
Time of senior investigator/staff											



	Least Challenging					Most Challenging					
	0	1	2	3	4	5	6	7	8	9	10
Genetic markers availability											
Genetic material availability											
Trait heritability											
Genetic variation											
Land availability											
Growing conditions at research farm											
Lack of facilities											
Other, please specify:											

12. Do you use marker-assisted breeding technology?

☐ Yes

☐ No

13. Why do you use marker-assisted breeding technology? Please check all that apply.

☐ Intellectual property protection

☐ Confirming parentage

☐ Confirming identity

☐

## Saving cost

- ☐ Increasing efficiency
- ☐ Aiding in selecting among seedlings
- ☐ Aiding in selecting parents to use
- ☐ Other, please specify:
- ☐ Other, please specify:
- ☐ Other, please specify:

**13. Why don't you use marker-assisted breeding technology? Please check all that apply.**

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- ☐ Lack of knowledge
- ☐ It does not suit to what I am doing
- ☐ Too costly
- ☐ Lack of technology
- ☐ Other, please specify:
- ☐ Other, please specify:
- ☐ Other, please specify:

**14. Where does your funding for operations including staff and equipment come from? Please check all that apply.**

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- ☐ State funds
- ☐ Public funds from regional associations or other regional sources
- ☐ Federal funds
- ☐ Private industry funds
- ☐ Royalties
- ☐ Non-government funds
- ☐ Other, please specify:

**15. What is your highest level of education?**

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- ☐ Ph.D degree
- ☐ Masters degree
- ☐ Bachelors degree
- ☐ Some college
- ☐ High school degree
- ☐ Some high school or lower

**16. What is your gender?**

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- ☐ Male
- ☐ Female

**General Traits Scion**

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**17A. This section of the survey is centered on your program's "main" crop. If you work with more than one crop, please choose your main crop and answer the following questions based on the crop you chose. When this section is finished, you will have the opportunity to answer questions referring to other crops you also work with.**

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- ☐ Strawberry
- ☐ Apple Scion
- ☐ Apple Rootstock
- ☐ Pear Scion
- ☐ Pear Rootstock
- ☐ Tart Cherry Scion
- ☐ Tart Cherry Rootstock
- ☐ Sweet Cherry Scion
- ☐ Sweet Cherry Rootstock
- ☒ Peach Scion
- ☐ Peach Rootstock
- ☐ Plum Scion
- ☐ Plum Rootstock
- ☐ Apricot Scion
- ☐ Apricot Rootstock
- ☐ Almond Scion
- ☐ Almond Rootstock
- ☐ Blackberry
- ☐ Red Raspberry

☐

Black Raspberry

☐ Rose

18A. What is the major use of this crop? Please check all that apply.

☐ Fresh

☐ Processed

☐ Other:

19A. What traits are you currently working to improve? Please circle the level of importance of each trait. If the trait is not relevant to your crop, please choose “Not applicable.”

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Fruit firmness	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit juiciness	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flavor	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sweetness	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flesh color	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aromatics/volatiles	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soluble solids (Brix)	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Titrateable acidity	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pH	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skin color	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Fruit shape		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit size		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit uniformity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surface texture		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit UV tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Machine harvestability		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graft compatibility		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Productivity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Production consistency		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bearing precocity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blind nodes		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-harvest dropping		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended harvest season		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flowering date		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resistance to frost injury		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter hardiness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drought tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant architecture		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant vigor		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pollen production		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Self fertility		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Powdery Mildew		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aphid		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - bacterial		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - fungal		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - viral		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plum curculio		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storage disorders		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shelf - life		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent quality during storage		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bruise resistance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vitamin C content		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antioxidant content		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Phytonutrients		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**You rated the following traits as "Very Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

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	Low likelihood				High Likelihood					
	0	11	22	33	44	55	66	77	88	100

	Low likelihood					High Likelihood				
	0	11	22	33	44	55	66	77	88	100
» Fruit firmness										
» Fruit juiciness										
» Flavor										
» Sweetness										
» Flesh color										
» Aromatics/volatiles										
» Soluble solids (Brix)										
» Titratable acidity										
» pH										
» Skin color										
» Fruit shape										
» Fruit size										
» Fruit uniformity										
» Surface texture										
» Fruit UV tolerance										
» Machine harvestability										
» Graft compatibility										
» Productivity										
» Production consistency										
» Bearing precocity										
» Blind nodes										



	Low likelihood					High Likelihood				
	0	11	22	33	44	55	66	77	88	100
» Pre-harvest dropping										
» Extended harvest season										
» Flowering date										
» Resistance to frost injury										
» Winter hardiness										
» Heat tolerance										
» Drought tolerance										
» Plant architecture										
» Plant vigor										
» Pollen production										
» Self fertility										
» Powdery Mildew										
» Aphid										
» Other disease - bacterial										
» Other disease - fungal										
» Other disease - viral										
» Plum curculio										
» Storage disorders										
» Shelf - life										

	Low likelihood					High Likelihood				
	0	11	22	33	44	55	66	77	88	100
» Consistent quality during storage										
» Bruise resistance										
» Vitamin C content										
» Antioxidant content										
» Other Phytonutrients										

Any other traits that you think are "Very Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											
Other:											

You rated the following traits as "Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Fruit firmness												
» Fruit juiciness												
» Flavor												
» Sweetness												
» Flesh color												
» Aromatics/volatiles												
» Soluble solids (Brix)												
» Titratable acidity												
» pH												
» Skin color												
» Fruit shape												
» Fruit size												
» Fruit uniformity												
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Pre-harvest dropping											
» Extended harvest season											
» Flowering date											
» Resistance to frost injury											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - bacterial											
» Other disease - fungal											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

Any other traits that you think are "Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											
Other:											

You rated the following traits as "Neutral." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Fruit firmness												
» Fruit juiciness												
» Flavor												
» Sweetness												
» Flesh color												
» Aromatics/volatiles												
» Soluble solids (Brix)												
» Titratable acidity												
» pH												
» Skin color												
» Fruit shape												
» Fruit size												
» Fruit uniformity												
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Pre-harvest dropping											
» Extended harvest season											
» Flowering date											
» Resistance to frost injury											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - bacterial											
» Other disease - fungal											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

You rated the following traits as "Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Aromatics/volatiles											
» Soluble solids (Brix)											
» Titratable acidity											
» pH											



	Low likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Skin color												
» Fruit shape												
» Fruit size												
» Fruit uniformity												
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												
» Pre-harvest dropping												
» Extended harvest season												
» Flowering date												
» Resistance to frost injury												
» Winter hardiness												
» Heat tolerance												
» Drought tolerance												
» Plant architecture												

	Low likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - bacterial											
» Other disease - fungal											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

**You rated the following traits as "Very Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded. After you click the bar, it will turn blue. Only blue bars will be**

recorded.											
Low Likelihood						High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Aromatics/volatiles											
» Soluble solids (Brix)											
» Titratable acidity											
» pH											
» Skin color											
» Fruit shape											
» Fruit size											
» Fruit uniformity											
» Surface texture											
» Fruit UV tolerance											
» Machine harvestability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Blind nodes											
» Pre-harvest dropping											
» Extended harvest season											
» Flowering date											
» Resistance to frost injury											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - bacterial											
» Other disease - fungal											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Consistent quality during storage												
» Bruise resistance												
» Vitamin C content												
» Antioxidant content												
» Other Phytonutrients												

### General Traits Rootstock

**19A. What traits are you currently working to improve? Please circle the level of importance of each trait. If the trait is not relevant to your crop, please choose "Not applicable."**

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Suckering		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rooting ability		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graft compatibility		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Productivity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Production consistency		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bearing precocity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-harvest dropping		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter hardiness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Drought tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant architecture	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant vigor	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thornless	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dwarfing	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soil pH tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aphid	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Root rot	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - fungal	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - bacterial	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - viral	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**You rated the following traits as "Very Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

	Low Likelihood				High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											

Any other traits that you think are "Very Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other: <input type="text"/>											
Other: <input type="text"/>											

**You rated the following traits as "Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											



	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											

Any other traits that you think are "Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other: <div></div>											
Other: <div></div>											

You rated the following traits as "Neutral." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Other disease - bacterial											
» Other disease - viral											

**You rated the following traits as "Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											

**You rated the following traits as "Very Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											

Block 15

20A. What traits would you like to work on/improve, but are not currently working on?

	Reason for not working
Trait:	

Reason for not working	
Trait: <input type="text"/>	<input type="text"/>
Trait: <input type="text"/>	<input type="text"/>
Trait: <input type="text"/>	<input type="text"/>
Trait: <input type="text"/>	<input type="text"/>

21A. How many years have you been working as a breeder on the studied crop?

22A. On average, how many crosses (parental combinations) do you make per year?

<5	6-10	11-20	21-30	31-40	41-50	51-100	101-150	>150
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23A. On average, how many seedlings do you raise for screening and selection per year?

- ☐ <500
- ☐ 500-1,000
- ☐ 1,001-2,000
- ☐ 2,001-5,000
- ☒ 5,001-10,000
- ☐ 10,001-15,000

15,001-20,000

- ☐ 20,001-30,000
- ☐ 30,001-50,000
- ☐ >50,000

**24A. How many cultivars do you predict releasing in the next 5 years?**

---

- |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 1                     | 2                     | 3                     | 4                     | 5                     | 6-10                  | 11-15                 | 16-20                 | >20                   |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**Another Crop Survey**

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**You will have the opportunity to set the importance of traits for another crop you are working on, would you like to continue?**

---

- ☐ Yes
- ☐ No

**Second crop scion traits**

---

**17B. Please choose another crop that you want to participate in this survey.**

---

- ☐ Strawberry
- ☐ Apple Scion
- ☐ Apple Rootstock
- ☐ Pear Scion

☐

## Pear Rootstock

- ☐ Tart Cherry Scion
- ☐ Tart Cherry Rootstock
- ☐ Sweet Cherry Scion
- ☐ Sweet Cherry Rootstock
- ☐ Peach Scion
- ☐ Peach Rootstock
- ☐ Plum Scion
- ☐ Plum Rootstock
- ☐ Apricot Scion
- ☐ Apricot Rootstock
- ☐ Almond Scion
- ☐ Almond Rootstock
- ☐ Blackberry
- ☐ Red Raspberry
- ☐ Black Raspberry
- ☐ Rose

**18B. What is the major use of this crop? Please check all that apply.**

---

- ☐ Fresh
- ☐ Processed
- ☐ Other:



**19B. What traits are you currently working to improve? Please circle the level of importance of each trait. If the trait is not relevant to your crop, please choose "Not applicable."**

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Fruit firmness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit juiciness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flavor		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sweetness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flesh color		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flesh browning		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aromatics/volatiles		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soluble solids (Brix)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Titrateable acidity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pH		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit color		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit shape / Kernel shape		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit size / Kernel size		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit uniformity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surface texture		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit UV tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Machine harvestability		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graft compatibility		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Productivity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Production consistency		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bearing precocity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blind nodes		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-harvest dropping		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended harvest season		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flowering date		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resistance to frost injury		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter hardiness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drought tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant architecture		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant vigor		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pollen production		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self fertility		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Powdery Mildew		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aphid		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - fungal		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - bacterial		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - viral		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plum curculio		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Storage disorders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shelf - life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent quality during storage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bruise resistance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vitamin C content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antioxidant content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other Phytonutrients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You rated the following traits as "Very Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Flesh browning											
» Aromatics/volatiles											
» Soluble solids (Brix)											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Titratable acidity											
» pH											
» Fruit color											
» Fruit shape / Kernel shape											
» Fruit size / Kernel size											
» Fruit uniformity											
» Surface texture											
» Fruit UV tolerance											
» Machine harvestability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Blind nodes											
» Pre-harvest dropping											
» Extended harvest season											
» Flowering date											
» Resistance to frost injury											
» Winter hardiness											
» Heat tolerance											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

**Any other traits that you think are "Very Important?" Using the following 0-100 scaling bars, please specify the**

likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											
Other:											

You rated the following traits as "Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Flesh browning											
» Aromatics/volatiles											
» Soluble solids (Brix)											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Titratable acidity											
» pH											
» Fruit color											
» Fruit shape / Kernel shape											
» Fruit size / Kernel size											
» Fruit uniformity											
» Surface texture											
» Fruit UV tolerance											
» Machine harvestability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Blind nodes											
» Pre-harvest dropping											
» Extended harvest season											
» Flowering date											
» Resistance to frost injury											
» Winter hardiness											
» Heat tolerance											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Drought tolerance												
» Plant architecture												
» Plant vigor												
» Pollen production												
» Self fertility												
» Powdery Mildew												
» Aphid												
» Other disease - fungal												
» Other disease - bacterial												
» Other disease - viral												
» Plum curculio												
» Storage disorders												
» Shelf - life												
» Consistent quality during storage												
» Bruise resistance												
» Vitamin C content												
» Antioxidant content												
» Other Phytonutrients												

**Any other traits that you think are "Important?" Using the following 0-100 scaling bars, please specify the**



likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											
Other:											

You rated the following traits as "Neutral." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Flesh browning											
» Aromatics/volatiles											
» Soluble solids (Brix)											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Titratable acidity												
» pH												
» Fruit color												
» Fruit shape / Kernel shape												
» Fruit size / Kernel size												
» Fruit uniformity												
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												
» Pre-harvest dropping												
» Extended harvest season												
» Flowering date												
» Resistance to frost injury												
» Winter hardiness												
» Heat tolerance												

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

**You rated the following traits as "Unimportant." Using the following 0-100 scaling bars, please specify the**

likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Flesh browning											
» Aromatics/volatiles											
» Soluble solids (Brix)											
» Titratable acidity											
» pH											
» Fruit color											
» Fruit shape / Kernel shape											
» Fruit size / Kernel size											
» Fruit uniformity											
» Surface texture											
» Fruit UV tolerance											
» Machine harvestability											
» Graft compatibility											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Productivity											
» Production consistency											
» Bearing precocity											
» Blind nodes											
» Pre-harvest dropping											
» Extended harvest season											
» Flowering date											
» Resistance to frost injury											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

**You rated the following traits as "Very Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Flesh browning											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Aromatics/volatiles												
» Soluble solids (Brix)												
» Titratable acidity												
» pH												
» Fruit color												
» Fruit shape / Kernel shape												
» Fruit size / Kernel size												
» Fruit uniformity												
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												
» Pre-harvest dropping												
» Extended harvest season												
» Flowering date												
» Resistance to frost injury												

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											



**Another crop rootstock**

**19B. What traits are you currently working to improve? Please circle the level of importance of each trait. If the trait is not relevant to your crop, please choose "Not applicable."**

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Suckering	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rooting ability	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graft compatibility	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Productivity	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Production consistency	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bearing precocity	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-harvest dropping	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter hardiness	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drought tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant architecture	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant vigor	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thornless	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dwarfing	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soil pH tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aphid	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Root rot	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Other disease - bacterial		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - fungal		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - viral		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You rated the following traits as "Very Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - bacterial											
» Other disease - fungal											
» Other disease - viral											

Any other traits that you think are "Very Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											
Other:											

You rated the following traits as "Important." Using the following 0-100 scaling bars, please specify the likelihood

you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - bacterial											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Other disease - fungal											
» Other disease - viral											

Any other traits that you think are "Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											
Other:											

You rated the following traits as "Neutral." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Pre-harvest dropping												
» Winter hardiness												
» Heat tolerance												
» Drought tolerance												
» Plant architecture												
» Plant vigor												
» Thornless												
» Dwarfing												
» Soil pH tolerance												
» Aphid												
» Root rot												
» Other disease - bacterial												
» Other disease - fungal												
» Other disease - viral												

You rated the following traits as "Unimportant." Using the following 0-100 scaling bars, please specify the

likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - bacterial											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Other disease - fungal											
» Other disease - viral											

You rated the following traits as "Very Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											



	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - bacterial											
» Other disease - fungal											
» Other disease - viral											

**20B. What traits would you like to work on/improve, but not currently working on?**

		Reason for not working
Trait:		
Trait:		
Trait:		
Trait:		
Trait:		

**21B. How many years have you been working as a breeder on the studied crop?**

**22B. On average, how many crosses (parental combinations) do you make per year?**

<5	6-10	11-20	21-30	31-40	41-50	51-100	101-150	>150
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**23B. On average, how many seedlings do you raise for screening and selection per year?**

- ☐ <500
- ☐ 500-1,000
- ☐ 1,001-2,000
- ☐ 2,001-5,000
- ☐ 5,001-10,000
- ☐ 10,001-15,000
- ☐ 15,001-20,000
- ☐ 20,001-30,000
- ☐ 30,001-50,000
- ☐ >50,000

**24B. How many cultivars do you predict releasing in the next 5 years?**

1	2	3	4	5	6-10	11-15	16-20	>20
---	---	---	---	---	------	-------	-------	-----

### Third crop

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**You will have the opportunity to set the importance of traits for another crop you are working on, would you like to continue?**

---

- ☐ Yes
- ☐ No

### third crop traits scion

---

**17C. You will have the opportunity to set the importance of traits for another crop you are working on by taking another survey, would you like to continue?**

---

- ☐ Strawberry
- ☐ Apple Scion
- ☐ Apple Rootstock
- ☐ Pear Scion
- ☐ Pear Rootstock
- ☐ Tart Cherry Scion
- ☐ Tart Cherry Rootstock
- ☐ Sweet Cherry Scion
- ☐ Sweet Cherry Rootstock
- ☐ Peach Scion
- ☐ Peach Rootstock

Plum Scion

- ☐ Plum Rootstock
- ☐ Apricot Scion
- ☐ Apricot Rootstock
- ☐ Almond Scion
- ☐ Almond Rootstock
- ☐ Blackberry
- ☐ Red Raspberry
- ☐ Black Raspberry
- ☐ Rose

18C. What is the major use of this crop? Please check all that apply.

- ☐ Fresh
- ☐ Processed
- ☐ Other:

19C. What traits are you currently working to improve? Please circle the level of importance of each trait. If the trait is not relevant to your crop, please choose “Not applicable.”

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Fruit firmness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit juiciness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Flavor		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sweetness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flesh color		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aromatics/volatiles		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soluble solids (Brix)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Titrateable acidity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
pH		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Skin color		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit shape		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit size		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit uniformity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surface texture		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit UV tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Machine harvestability		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graft compatibility		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Productivity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Production consistency		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bearing precocity		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Blind nodes		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-harvest dropping		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended harvest season		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Flowering date		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resistance to frost injury		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter hardiness		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drought tolerance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant architecture		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant vigor		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pollen production		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self fertility		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Powdery Mildew		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aphid		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - fungal		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - bacterial		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - viral		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plum curculio		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storage disorders		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shelf - life		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consistent quality during storage		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bruise resistance		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vitamin C content		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Antioxidant content		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Other Phytonutrients		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You rated the following traits as "Very Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Aromatics/volatiles											
» Soluble solids (Brix)											
» Titratable acidity											
» pH											
» Skin color											
» Fruit shape											
» Fruit size											
» Fruit uniformity											
» Surface texture											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												
» Pre-harvest dropping												
» Extended harvest season												
» Flowering date												
» Resistance to frost injury												
» Winter hardiness												
» Heat tolerance												
» Drought tolerance												
» Plant architecture												
» Plant vigor												
» Pollen production												
» Self fertility												
» Powdery Mildew												
» Aphid												



	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

Any other traits that you think are "Very Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other: <input type="text"/>											

**You rated the following traits as "Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

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	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												
» Pre-harvest dropping												
» Extended harvest season												
» Flowering date												
» Resistance to frost injury												
» Winter hardiness												
» Heat tolerance												
» Drought tolerance												
» Plant architecture												
» Plant vigor												
» Pollen production												
» Self fertility												
» Powdery Mildew												

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Aphid											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

Any other traits that you think are "Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											

**You rated the following traits as "Neutral." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.**

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	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit uniformity											
» Surface texture											
» Fruit UV tolerance											
» Machine harvestability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Blind nodes											
» Pre-harvest dropping											
» Extended harvest season											
» Flowering date											
» Resistance to frost injury											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Pollen production											
» Self fertility											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Powdery Mildew											
» Aphid											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

You rated the following traits as "Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Fruit firmness												
» Fruit juiciness												
» Flavor												
» Sweetness												
» Flesh color												
» Aromatics/volatiles												
» Soluble solids (Brix)												
» Titratable acidity												
» pH												
» Skin color												
» Fruit shape												
» Fruit size												
» Fruit uniformity												
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												



	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Pre-harvest dropping												
» Extended harvest season												
» Flowering date												
» Resistance to frost injury												
» Winter hardiness												
» Heat tolerance												
» Drought tolerance												
» Plant architecture												
» Plant vigor												
» Pollen production												
» Self fertility												
» Powdery Mildew												
» Aphid												
» Other disease - fungal												
» Other disease - bacterial												
» Other disease - viral												
» Plum curculio												
» Storage disorders												
» Shelf - life												

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

You rated the following traits as "Very Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Fruit firmness											
» Fruit juiciness											
» Flavor											
» Sweetness											
» Flesh color											
» Aromatics/volatiles											
» Soluble solids (Brix)											
» Titratable acidity											
» pH											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Skin color												
» Fruit shape												
» Fruit size												
» Fruit uniformity												
» Surface texture												
» Fruit UV tolerance												
» Machine harvestability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Blind nodes												
» Pre-harvest dropping												
» Extended harvest season												
» Flowering date												
» Resistance to frost injury												
» Winter hardiness												
» Heat tolerance												
» Drought tolerance												
» Plant architecture												

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Plant vigor											
» Pollen production											
» Self fertility											
» Powdery Mildew											
» Aphid											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											
» Plum curculio											
» Storage disorders											
» Shelf - life											
» Consistent quality during storage											
» Bruise resistance											
» Vitamin C content											
» Antioxidant content											
» Other Phytonutrients											

### third crop rootstock

**19C. What traits are you currently working to improve? Please circle the level of importance of each trait. If the trait is not relevant to your crop, please choose "Not applicable."**

		Very Unimportant	Unimportant	Neutral	Important	Very Important	Not Applicable
Suckering	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rooting ability	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Graft compatibility	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Productivity	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Production consistency	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bearing precocity	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pre-harvest dropping	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Winter hardiness	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heat tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drought tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant architecture	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plant vigor	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thornless	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dwarfing	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soil pH tolerance	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aphid	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Root rot	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - fungal	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - bacterial	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other disease - viral	<input type="checkbox"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

You rated the following traits as "Very Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Other disease - bacterial											
» Other disease - viral											

Any other traits that you think are "Very Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other:											
Other:											

You rated the following traits as "Important." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											

	Low Likelihood					High Likelihood						
	0	10	20	30	40	50	60	70	80	90	100	
» Rooting ability												
» Graft compatibility												
» Productivity												
» Production consistency												
» Bearing precocity												
» Pre-harvest dropping												
» Winter hardiness												
» Heat tolerance												
» Drought tolerance												
» Plant architecture												
» Plant vigor												
» Thornless												
» Dwarfing												
» Soil pH tolerance												
» Aphid												
» Root rot												
» Other disease - fungal												
» Other disease - bacterial												
» Other disease - viral												



Any other traits that you think are "Important?" Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please specify the traits in the text boxes, and then place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
Other: <input type="text"/>											
Other: <input type="text"/>											

You rated the following traits as "Neutral." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											

You rated the following traits as "Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											
» Other disease - bacterial											
» Other disease - viral											

You rated the following traits as "Very Unimportant." Using the following 0-100 scaling bars, please specify the likelihood you will select these traits as your breeding targets (0=low likelihood, 100=high likelihood). Please place the cursor at the number that best matches your likelihood of breeding and click. After you click the bar, it will turn blue. Only blue bars will be recorded.

	Low Likelihood					High Likelihood					
	0	10	20	30	40	50	60	70	80	90	100
» Suckering											
» Rooting ability											
» Graft compatibility											
» Productivity											
» Production consistency											
» Bearing precocity											
» Pre-harvest dropping											
» Winter hardiness											
» Heat tolerance											
» Drought tolerance											
» Plant architecture											
» Plant vigor											
» Thornless											
» Dwarfing											
» Soil pH tolerance											
» Aphid											
» Root rot											
» Other disease - fungal											

Low Likelihood					High Likelihood					
0	10	20	30	40	50	60	70	80	90	100
» Other disease - bacterial										
» Other disease - viral										

20C. What traits would you like to work on/improve, but not currently working on?

	Reason for not working
Trait: <input type="text"/>	<input type="text"/>
Trait: <input type="text"/>	<input type="text"/>
Trait: <input type="text"/>	<input type="text"/>
Trait: <input type="text"/>	<input type="text"/>
Trait: <input type="text"/>	<input type="text"/>

21C. How many years have you been working as a breeder on the studied crop?

22C. On average, how many crosses (parental combinations) do you make per year?

<5	6-10	11-20	21-30	31-40	41-50	51-100	101-150	>150
----	------	-------	-------	-------	-------	--------	---------	------

23C. On average, how many seedlings do you raise for screening and selection per year?

<500

500-1,000

1,001-2,000

2,001-5,000

5,001-10,000

10,001-15,000

15,001-20,000

20,001-30,000

30,001-50,000

>50,000

24C. How many cultivars do you predict releasing in the next 5 years?

1

2

3

4

5

6-10

11-15

16-20

>20