



On-Farm Variety Trialing

The Growers' Guide to Conducting On-Farm Variety Trials

www.seedalliance.org/publications

Setting goals, selecting varieties and sourcing seed

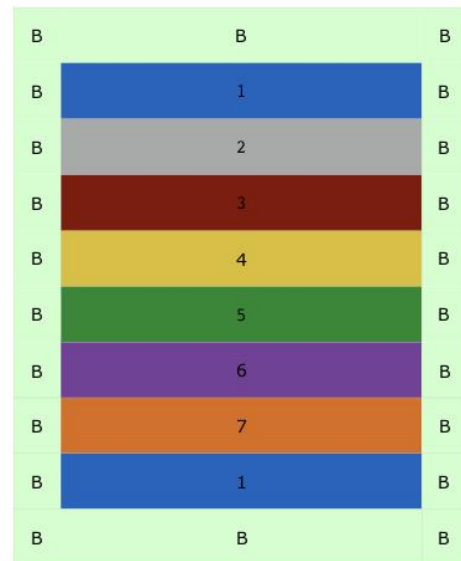
Clearly defining trial goals will help keep trial management, data collection and analysis realistic

For example you may want to find a variety that:

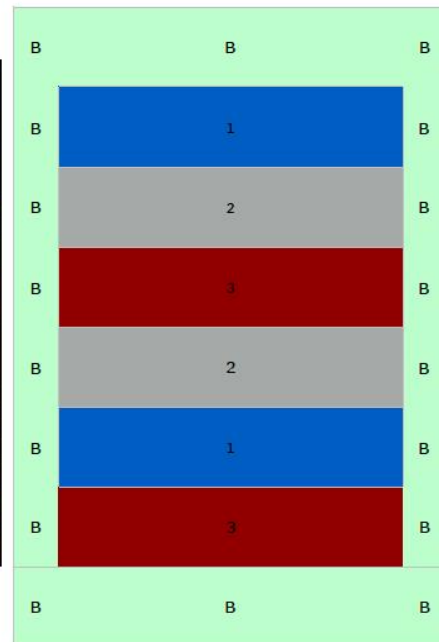
- Resists a specific pest or disease
- Fills a gap in rotation or particular market niche
- Has desired agronomic characteristics, such as improved yield, test weight, standability, early emergence/ vigor, weed competitiveness/ plant architecture
- Is available in organic seed and comparable to conventional variety
- Is better suited to new equipment/ management techniques (ie. no-till)

Screening Trials

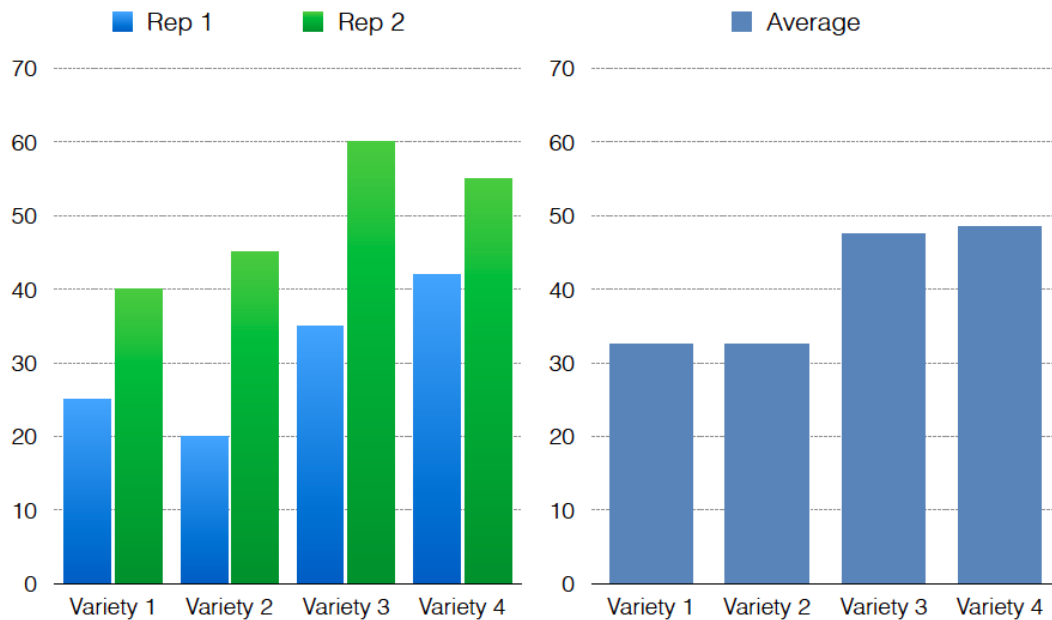
- One check variety replicated
- Plot fairly uniform
- Varieties compared to check
- Can test more varieties
- Borders important!



Replicated trials



Replication



DATA COLLECTION TIPS

1. **Begin by walking the trial**
2. **Evaluate each plot, one trait at a time, taking notes.**
3. **Evaluate all of the plants in a plot.**
4. **Rank each variety overall at the end.**
5. **Label your datasheet and keep it safe**

Measurement: yield, plant height, grain quality metrics

Ranking:

Variety	Top Height Rank
Scarlet Nantes	1
Bolero	2
Yaya	3
Nelson	4
Nantes Fancy	5

Ranking of breeding material: fill in with which plot was better (for example, if A was better than B, fill in the box that corresponds to A and B with the letter "A")

	A	B	C	D
Plot A		A	A	D
Plot B			B	D
Plot C				D
Plot D				

Rating:

Use a 1-5 score for each category below:

Sweetness, acidity, bitterness, umami, intensity:

1= low 2= moderately low 3= moderate 4= moderately high

5= high

Appearance, texture, overall:

1= poor 2= fair 3= moderate 4= good 5= excellent

Variety Code:	NVM	PSJ	IDP	JXE	HKJ	XQM
Appearance						
Texture						
Sweetness						
Acidity						
Bitterness						
Umami (savory flavor)						
Intensity						

MAKING SENSE OF THE DATA

Wheat Rust Resistance (1-9)

Variety	Rep 1	Rep 2	Rep 3	Average
Red Fife	3	5	1	3.0
Hollis	7	9	3	6.3
Lassik	8	7	7	7.3
Sonora	5	5	5	5
Foisy	3	3	1	2.3

Variety Trial Tool

1. Get Started

2. Plan Your Trial

3. Upload Your Data

... or See Other Trials

4. Analyze

5. Save And Share

Variety Trial Tool

Welcome to OSA's online variety trial tool, created in cooperation with the USDA Risk Management Agency. This tool can help you plan simple variety trials and view the results.

Getting started with the Variety Trial Tool

Most people will use this site by beginning at the 'Plan Your Trial' tab.

If you already have trial data collected, skip to the 'Upload Your Data' tab.

If you want to see other people's trial data, go to the 'See Other Trials' tab.

For more information on how to conduct variety trials, go to <http://www.seedalliance.org>



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<http://seedalliance.org/varietytrialtool>

