

# KPB Scientific Trial Fact Sheet

## **Crop Information:**

**Crop Name (Common name)** \_\_\_\_\_

**Crop Type:** \_\_\_\_\_

**Cultivar or Genetic Species (Latin name)** \_\_\_\_\_

## **Scientific Trial Information:**

**Scientific Trial Start Date:** \_\_\_\_\_

**Scientific Trial End Date (Estimated)** \_\_\_\_\_

**Scientific Trial Location:** \_\_\_\_\_

**Scientific Trial Size:** \_\_\_\_\_

**KPB Field Size:** \_\_\_\_\_

**Control Field Size:** \_\_\_\_\_

**Distance Between Control & KPB Field:** \_\_\_\_\_

**Water Flow Rate & Distance:** \_\_\_\_\_

**Number of Replications (4-5 or more preferred)** \_\_\_\_\_

**Scientific Trial Name (See checklist below or write)** \_\_\_\_\_

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# KPB Scientific Trial Fact Sheet

Trial Number	Science Trial Name & Category	Checklist	Trial Number	Science Trial Name & Category	Checklist
	<b><u>Crop Season Expansion:</u></b>		38	Localized plant genetics analysis	
1	Crop season duration measurement		39	Titrateable acidity (TA) analysis	
			40	Brix or SSC/ TA ratio analysis	
	<b><u>Crop Disease Management Testing:</u></b>		41	Shelf life analysis	
2	Plant disease count		42	Transportation quality analysis	
3	Percent of incidence of foliar (leaf) diseases				
4	Percent of incidence of soil borne diseases			<b><u>Soil Health:</u></b>	
5	Testing related to KPB providing increased disease resistance under adverse environmental conditions		43	Soil compaction analysis	
			44	Soil Cation Exchange Capacity (CEC) analysis	
	<b><u>Growth and Vigor Quality:</u></b>		45	Soil nutrient level analysis	
6	Plant growth rate and health		46	Soil microbial activity pre and post crop harvest analysis	
7	Root density assessment		47	Beneficial microorganism analysis	
8	Canopy density assessment		48	Soil electro-conductivity (EC) test	
9	Photosynthetic efficiency		49	Soil pH analysis before and after KPB use	
10	Plant tissue analysis				
11	Germination vigor test			<b><u>Yield Analysis:</u></b>	
12	Cold germination test		50	Yield quantity analysis	
13	Germination quantity test		51	Yield weight analysis	
14	Weeds (unwanted plants) analysis		52	Flower production analysis	
			53	Flower drop rate analysis	
	<b><u>KPB Fertilizer Usage:</u></b>		54	Fruit drop rate analysis	
15	Reduced fertilizer usage analysis		55	Fruit production analysis	
16	Nitrogen absorption		56	Pounds of orange solids measurement analysis	
17	Carbon dioxide absorption		57	Yield per area analysis:	
18	General nutrient absorption		58	Plant growth rate in nurseries analysis	
19	Organic vs. synthetic fertilizer test		59	Mortality rate of transplants analysis	
20	Fertilizer usage test based on different soil environments		60	Yield per plant analysis	
21	Rhizobium and Cyanobacteria soil quantity analysis		61	Cuttings per plant term analysis	
	<b><u>Plant Nutrient Density:</u></b>			<b><u>Water Usage Analysis:</u></b>	
22	Crop tissue nutrient analysis		62	Decreased water use analysis	
23	Foliar (leaf), stem, or root tissue nutrient analysis		63	Brackish water tolerance analysis	
24	Sap nutrient test		64	Plant transpiration rate analysis	
			65	Plant water potential analysis	
	<b><u>Pest Management:</u></b>		66	Relative water content analysis	
25	Percent of pest incidence		67	Photosynthetic water use efficiency analysis	
26	Pest resistance test by crop		68	Water infiltration into the soil to a specified depth analysis	
27	KPB bio-control analysis		69	Water activity (AW) using a hygrometer analysis	
28	KPB bee impact study		70	Water absorption analysis	
29	Beneficial microorganism analysis		71	Water application reduction study	
30	Macro-invertebrates analysis		72	Rainwater advantage study	
31	Vertebrates analysis				
32	Animal mating/ pheromone analysis			<b><u>Animal Studies:</u></b>	
33	Sterile insect release analysis		73	Milk production analysis:	
34	Bio-pesticide vs. conventional pesticide analysis		74	Meat production analysis	
	<b><u>Product Quality:</u></b>			<b><u>Plant Breeding and Genetics Analysis:</u></b>	
35	Grade standards analysis		75	Plant genetics/ cultivar analysis	
36	Size standards analysis				
37	Soluble solid content (SSC) or Brix analysis				

# KPB Scientific Trial Fact Sheet

## **Before Scientific Trial Checklist:**

**Soil Cation Exchange Capacity (CEC) Prior to Trial** \_\_\_\_\_

**Soil Nutrient/Mineral Analysis (Macronutrients & Micronutrients) Prior to Trial** \_\_\_\_\_

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**Soil Microorganism & Macro-invertebrate Analysis Prior to Trial:** \_\_\_\_\_

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## **After Scientific Trial Checklist:**

**Cation Exchange Capacity (CEC) After Trial** \_\_\_\_\_

**Soil Nutrient/Mineral Analysis (Macronutrients & Micronutrients) After Trial:** \_\_\_\_\_

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**Soil Microorganism & Macro-invertebrate Analysis After Trial:** \_\_\_\_\_

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**Crop Nutrient Content Analysis (After Harvest)** \_\_\_\_\_

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**Crop Shelf Life Analysis:** \_\_\_\_\_

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# KPB Scientific Trial Fact Sheet

## Agreement & Signature:

Name: \_\_\_\_\_

Signee Title: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**Revised by:** Keegan Nelson (Science Director)

**Revised Date:** 1/30/2022