

Winter Cover Crop Performance in the Sacramento Valley

Sarah Light and Amber Vinchesi-Vahl



University of California

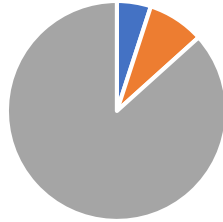
Agriculture and Natural Resources | Cooperative Extension

Winter cover crop species were planted into dry soil (4 rows/60" bed) on 10/24/2019 in Meridian, CA and irrigated by rainfall. On 3/17/2020, the following data were collected from each plot: cover crop height at 3 points in the plot; percent cover (proportion of cover crops, weeds, and bare soil) in three 20x20 cm quadrats; and biomass in three 20x20 cm quadrats. Biomass in the sampling area (including cover crop and weeds) was analyzed for total carbon (C) and nitrogen (N). All data are calculated on a per acre basis.

Percent Cover Key (averages of three quadrats): Gray=Cover Crop. Orange=Weeds. Blue=Bare Soil

Grasses: Merced Ryegrain

Pounds C: 4,715
Pounds N: 162



Average Height: 48 in



Grasses: OK Ryegrain

Pounds C: 2,411
Pounds N: 143



Average Height: 27 in



Grasses: UC 937 Barley

Pounds C: 2,407
Pounds N: 114



Average Height: 25 in



Grasses: 2700 Triticale

Pounds C: 2,970
Pounds N: 178



Average Height: 19 in



All seed was donated by Kamprath Seed. Thank you to Tom Johnson and Kamprath Seed for supporting this work.

Grasses: Trios Triticale



Pounds C: 880
Pounds N: 61



Average Height: 16 in

Grasses: Cayuse Oats



Pounds C: 2,189
Pounds N: 90



Average Height: 22 in

Legumes: Hairy Vetch



Pounds C: 2,025
Pounds N: 183

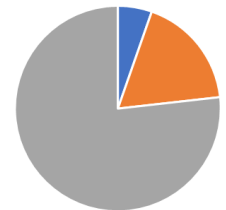


Average Height: 13 in

Legumes: Common Vetch



Pounds C: 1635
Pounds N: 126

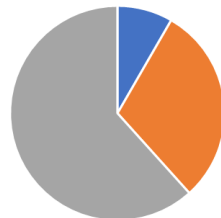


Average Height: 15 in

Legumes: Purple Vetch



Pounds C: 1,161
Pounds N: 100

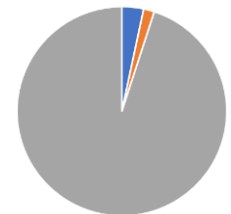


Average Height: 13 in

Legumes: Woollypod Vetch



Pounds C: 1,823
Pounds N: 168



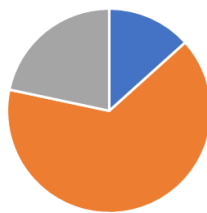
Average Height: 19 in

Percent Cover Key (averages of three quadrats): Gray=Cover Crop. Orange=Weeds. Blue=Bare Soil

Legumes: Lentils



Pounds C: 858
Pounds N: 67

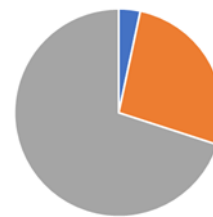


Average Height: 8 in

Legumes: Faba Beans



Pounds C: 2,225
Pounds N: 169

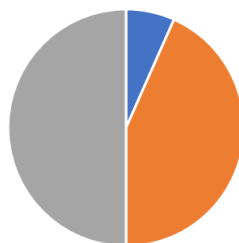


Average Height: 20 in

Legumes (peas): Weaver Winter Pea 290



Pounds C: 1,057
Pounds N: 91



Average Height: 14 in

Legumes (peas): Austrian Winter Pea



Pounds C: 1,001
Pounds N: 102

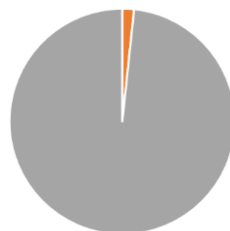


Average Height: 16 in

Legumes (peas): Arvika Peas



Pounds C: 3,282
Pounds N: 224

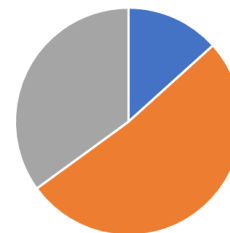


Average Height: 26 in

Legumes (peas): Yellow Peas



Pounds C: 963
Pounds N: 61



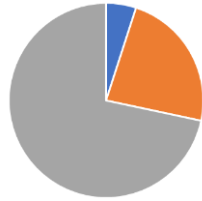
Average Height: 22 in

Percent Cover Key (averages of three quadrats): Gray=Cover Crop. Orange=Weeds. Blue=Bare Soil

Legumes (peas): Biomaster Peas



Pounds C: 2,652
Pounds N: 205

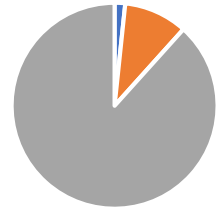


Average Height: 25 in

Legumes (peas): 4010 Peas



Pounds C: 2,126
Pounds N: 165



Average Height: 32 in

Brassicas: Yellow Mustard



Pounds C: 3,301
Pounds N: 168

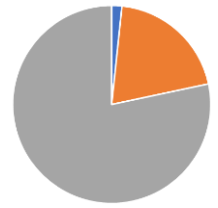


Average Height: 51 in

Brassicas: Bracco Mustard



Pounds C: 5,035
Pounds N: 249

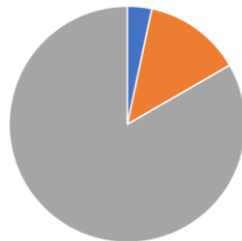


Average Height: 51 in

Brassicas: Brown Mustard



Pounds C: 4,923
Pounds N: 359

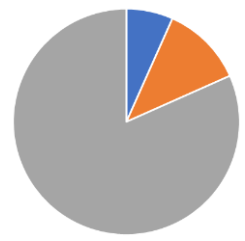


Average Height: 42 in

Brassicas: Nemafix Black Mustard



Pounds C: 3,008
Pounds N: 167



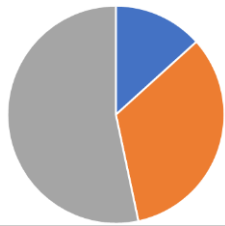
Average Height: 43 in

Percent Cover Key (averages of three quadrats): Gray=Cover Crop. Orange=Weeds. Blue=Bare Soil

Brassicas: Canola



Pounds C: 2,267
Pounds N: 95

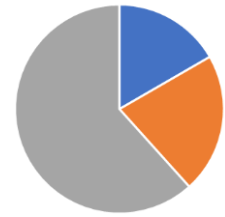


Average Height: 37 in

Brassicas: Daikon Radish



Pounds C: 3,969
Pounds N: 186



Average Height: 37 in

Percent Cover Key (averages of three quadrats): Gray=Cover Crop. Orange=Weeds. Blue=Bare Soil



****All seed was donated by Kamprath Seed. Thank you to Tom Johnson and Kamprath Seed for supporting this work.****