

# Pilot Project Report for 2015-2016 Planting year

## Test Plots

Seed was planted on the 2<sup>nd</sup> of December, 2015 in anticipation of the first major weather event of the year. Approximately ¼ acre was plated to a cost sensitive seed mix at \$96.41/acre while another ¼ acre was planted to a “no cost consideration” ( \$298.10) mix which was composed of plant species which were felt to be successful in the trial from the previous year. Seeding rates were as per instructions by Hedgerow (11/16/2015- Emily Allen)

The plants are as follows:

### Low dollar:

Achillea millefolium - yarrow  
Clarkia Ungulata- elegant clarkia  
Calandrinia ciliate - red maids  
Eschscholzia californica-California poppy  
Grindelia camporum- gum plant  
Lasthenia glabrata-yellow ray goldfields  
Lupinus succulentus-arroya lupine  
Phacelia tanacetifolia-lacy phacelia  
Phacelia ciliate  
Layia platyglossa- common tidy lips  
Lana Vetch  
White clover  
Balansa clover  
Persian clover

### High dollar

Atriplex argentea –Silverscale saltbrush  
Achillea millefolium-yarrow  
Acmispon americanus-Spanish Clover  
Calandrinia ciliate-red maids  
Eschscholzia californica-California poppy  
Grindelia camporum-gum plant  
Helianthus bolanderi-Bolander’s sunflower  
Lasthenia glabrata-yellow ray goldfields  
Lupinus succulentus-arroyo lupine  
Phacelia tanacetifolia-lacy phacelia  
Trifolium Willdenovii- Tomcat clover

Early stage of test plots



Later stage with mustard. In foreground gold fields and arroyo lupine. Matt Meshry and John Anderson in photo.

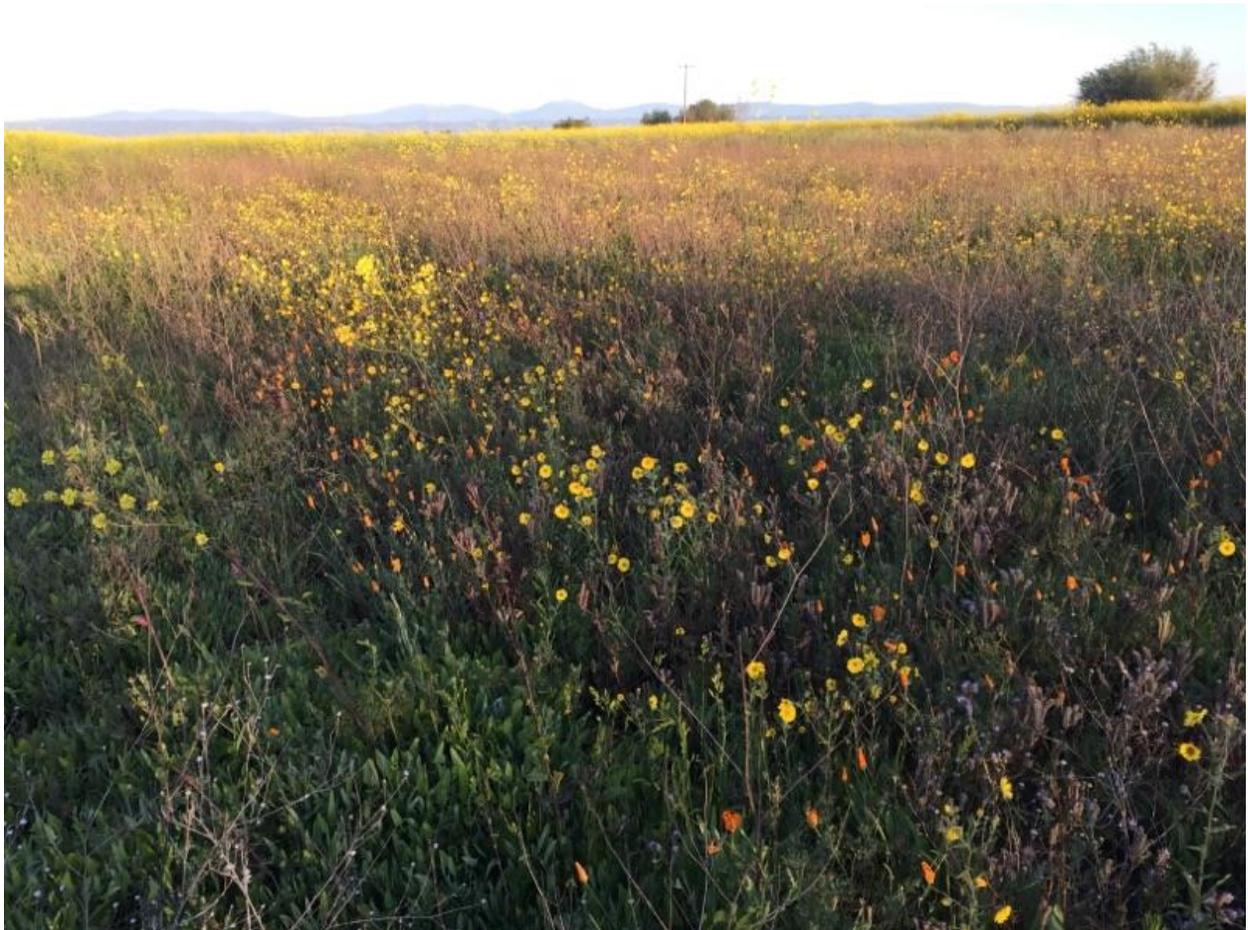


The performance of most of the plants, with a few

exceptions, was poor. Several contributing factors appeared to cause the poor performance. The seed bed preparation caused two negative factors: first the growth of Mustard (*Sinapis avensis*) was unbelievable. The growth exceeded 8ft. The high rainfall and disturbed soil really seemed to favor the mustard crop. Early in the growing season the soil seemed to glaze over with the rainfall into an almost concrete-like surface. With the high clay content this appeared to make it difficult for many of the plant species to germinate. One plant species seed to make it through this challenge and thrive in some areas Arroyo lupine. Between the species planted this year and those persisting in the sites planted last year the following seemed to show promise:

*Madia elegans*-common madia  
*Eschscholzia californica* -California poppy  
*Phacelia tanacetifolia*-lacy phacelia  
*Lupinus succulentus*-Arroyo lupine  
*Lasthenia glabrata*-yellow ray goldfields  
*Clarkia unguiculata*-elegant clarkia

Last year's plot. Note the almost total lack of mustard. Seems as though in year one you are really going to battle mustard on disturbed soil. It is also of note that 2014-15 was an extremely dry spring whereas 20115-16 was wet.



One species that I think needs to be included, which did not do well in the trials is *Helianthus bolanderi*- Bolanders sunflower for both seed and structure. At the end of the growing season there isn't a whole lot of vertical structure left in the fields.

Lupine in test plot this year



**Wildlife Use/ 2016**

| Pheasants Crow Counts |               | Station 1 | Station 2 |
|-----------------------|---------------|-----------|-----------|
| Wind 0 mph            |               |           |           |
| 2015                  | Two minutes   | 4.33      | 6.3       |
|                       | Three minutes | 7         | 9         |
| 2016                  | Two minutes   | 2         | 2.5       |
|                       | Three minutes | 3.5       | 3         |

**Brood counts**

6/4- One hen with four young four weeks of age. This compares with one hen with two young the previous year. Anecdotally the Land owner counted 20 young birds two weeks later.

|                        | 4/13 | 4/25 | 6/4 |
|------------------------|------|------|-----|
| Doves                  | 2    |      | 3   |
| Red-winged black birds | 30   | 30   | 14  |
| Pheasants              | 2    |      | 1   |
| Mallards               | 2    | 2    | 2   |
| Jack Rabbits           | 1    |      | 4   |
| Meadow larks           | 2    |      |     |
| Norther Harrier        | 1    | 2    |     |

### Field Trials

On the same date (12/2/2015) two, two and a half acres strips were planted with a mixture of Triticale (Triticosecale), Bell Beans (*Vicia faba*) and Purple Vetch (*Vicia americana*). The seed were drilled into previously disked double wide strips. Seeding rates were 130 lbs., 10/lbs and 10lbs respectively per acre for the three selected plants.

Seed mix of Triticale, Bell Beans and Purple Vetch



Disked and drilled strips



The apparent suppression of Mustard was really unexpected but appeared to be quite effective with the triticale. In the end the Bell beans were almost non-existent while the vetch was widely in evidence. Vetch, while successful in propagation may be a bit of a problem for young birds to get through in that the vegetation creates a real tangle of structure.

Newly planted  
Strip



Mid-Season



Matures stand



Soil moisture probe placement

