

California Department of Fish and Wildlife

Progress Report 10/30/2015-Pheasants Forever

**Agreement #: P1480019 00**

**Title: Understanding Pheasant Habitat Development in a Drought Impacted Landscape**

### **Vegetation Response**

Test plots planted: February 5<sup>th</sup>, March 13<sup>th</sup> and April 15<sup>th</sup>

Field assessment made on May 22, 2015 with John Anderson of Hedgerow Farms, the donor of the native plant materials.

Results: The seed germination differences were quite pronounced between the three planted half acre plots. Where rain had come soon after the planting in plot number one the other two received virtually no rain as part of California's ongoing catastrophic drought. As a result Plot #2 and #3 were virtually bare. The only plant which seemed to thrive on these two plots, in selected portions of the plots, were Morning Glory (*Ipomoea* sp.) Subsequent visits to the project (8/26/2015) saw a diminished abundance of all species as they became desiccated. The rainfall pattern made it virtually impossible to evaluate the real potential for some of the species planted in period 2 and 3.

**Plot 1:** Seed mixes included: *Acmispon americanus*, var. *americanus* (Spanish Clover), *Madia elegans* (common madia), *Lasthenia glabrata* (yellow ray goldfields), *Festuca microstachys* (small fescue), *Phacelia tanacetifolia* (lacy phacelia), *Helianthus bolanderi* (Bolander's sunflower), *Eschscholzia californica* (California poppy), *Calandrinia ciliata* (red maids) and *Grindellia camporum* (gum plant).

Of these plants; common madia, lacy phacelia and California poppy were the most prolific planted species in evidence. These three equally made up about 50% of the total ground cover.

There were other non-planted weeds in evidence, sometimes in abundance. These non-planted plants included: *Polygonum arenastrum* (Knotweed), *Centaurea solstitialis* (Star Thistle), *Sorghum halepense* (Johnson Grass), *Brassica prapa* (Mustard), *Cirsium vulgare* (Bull Thistle), *Lactuca* sp. (Prickly lettuce), *Kali tragus* (Russian thistle), *Rumex* Sp. (Dock) and *Amaranthus* spp. (pigweed). Mustard was most in evidence with a pretty even stand at heights of about 1 meter.

Photo 1 is of Colusa High School Students assisting in planting the test plot. Seeds for the individual seed trials ended up being planted too deeply for successful germination.

Photo 2, shows the initial seed response in plot one.

Photo 3, shows seed plantings at maturity in plot one

Photo 4, illustrates the lack of vegetative response for both Plot two and three

Photo #1



Photo #2





**Photo #3**



**Plot 2:** Seed mixes included: Yarrow (*Achillea millefolium*) Spanish Clover, red maids, *Clarkia purpurea* (purple clarkia), *Clarkia unguiculata* (elegant clarkia), California poppy, gum plant, Bolander's sunflower, yellow ray goldfields, arroyo lupine (*Lupinus succulentus*), evening primrose (*Oenothera elata* ssp. *Hirsutissima*), Great Valley phacelia (*Phacelia ciliate*), tomcat clover (*Trifolium willdenovii*)

**Plot 3:** Seed mixes included: *Achillea millefolium* (yarrow), red maids, purple clarkia, California poppy, gum plant, yellow ray goldfield< *Lupinus succulentus* (arroyo lupine), *Phacelia ciliate* (Great Valley phacelia), *Phacelia tanacetifolia* (lacy phacelia) , tree clover (*Trifolium ciliolatum* )

The non-planted fourth quadrant was established as a control. This quarter acre parcel was dominated with mustard and a fairly robust crop of *entromadia pungens* (tarweed).

Photo #4



Based on the preliminary assessment it is obvious that planting needs to be done before the first of the year to come up with anything meaningful in the way of vegetative response. This is especially critical in dry years such as we have been experiencing the past four years. To ask a grower to spend \$100 per acre just for seed with little response would seem foolish.

#### **Pheasant response**

**Crow counts:** were conducted on April 13<sup>th</sup>, starting at 0603, sunrise was at 0632. There were two call stations established. One in the middle of the western north/ south center road, and a station in the middle of the southern east/ west road. Three replicate counts were made at both the 2 and 3 minute intervals. The results are as follows:

	2 min	3 min
Station 1	4/5/4	5/8/6
Station 2	7/5/9	9/8/10

It should be noted that both to the south and east were some fairly large expanses of grassland of the study site that contributed to the calls.

**Brood Count :** Count made on July 31,2015 (7:05) One hen with two young counted on ½ mile route around field perimeter. Young appeared to be about 1/3 grown

**Other Wildlife** Of note were large numbers of Mourning doves (*Zenaidura macroura*), 2 Mallard (*Anas platyrhynchos*) pairs, Western Meadowlarks ( *Sturnella neglecta*), Western kingbird (*Tyrannus vociferans*) and red-winged blackbirds (*Agelaius phoeniceus*)

**Soil Moisture:** Due to the delay in the initiation of the contract soil moisture probes were not installed. They will be installed in early winter of 2015-2016.