

SAN PASQUAL VALLEY RIVER RESTORATION

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Summary of the TransNet / SANDAG 2009 San Pasqual Valley River Restoration (#5001136) Herbicidal Treatment, all application done by Ernie Klemm – Klemm Ranch

As per the following photos, the herbicidal treatment of both the Arundo and the tree tobacco was highly successful. We found the Arundo treatment to have the highest kill rate in the fall, although our method worked well throughout the year. The kill rate for the tree tobacco was consistent all year round. With our high kill rate in the fall, the re-treatment of the Arundo in the spring would be significantly less. We expect to monitor the site for two years after date of the initial application for any regrowth of either species, and any additional herbicide application needed.

The benefits of applying the herbicide in the manner we do are notable. The tree tobacco is cut, and the cut stems/stalks are sprayed by backpack sprayers, ATV equipped sprayers, and hose equipped agriculture tractors where appropriate. By using the particular mix of herbicide (Imazapyr and Glyphosate, MSO and dye) and the method of cutting of the stem/stalk, the kill rate of the tree tobacco has been 95-100%. We use less herbicide per acre and have less over-spray which is better for the environment and safer for the application personnel. The Arundo is treated using the same combination of herbicides, yet is only cut when needing a buffer area between the Arundo and native plants. This past year, our 85-95% success rate had much to do with the combination of herbicides used, the percentage and rate of spray, and spraying in early fall due to the drought conditions.

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This is a photo of tree tobacco on our site. The most common size located in our area is 1 to 10 feet in height, and ½ to 2 inches (stalk) in diameter. We find that cutting the stem and any part supporting the leaves or flowers then using the herbicide treatment described in our summary, we establish a kill rate of 95% or better.

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This stalk of tree tobacco is approximately 1' high and 1 1/4" inches in diameter after being cut. Obviously, it is more practical and efficient to treat a one-foot stalk rather than a 10 foot stalk. We use far less herbicide in the treatment which is safer for both the environment and the applicator. This method also produces a kill rate of 95% or better.

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This is a cut, treated stalk of tree tobacco with 100% kill rate.

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This is a patch of 8-14' tall Arundo that was treated slightly earlier than the fall of 2009, due to the drought conditions. The herbicide used was the same, and due to the fall timing, we've had a successful 85-95% kill rate.