

**At Native Humboldt Farms we grow outdoor medical cannabis without the use of artificial light. Our main goal at Native Humboldt farms is to ensure the protection of watershed and nearby habitat as best we possibly can. It has always been our goal to make the least possible environmental impact, and that is something that we will carry through into the years to come. We implement this through a variety of different ways, but the biggest being our Conservation Tillage, and our closely monitored Nutrient and Pest Management programs.**

**First, our Conservation Tillage program that we are currently implementing, will help reduce run off as well as soil erosion. It will help control the runoff of excess nutrients, and it helps to conserve soil moisture. Everything has been converted, or is in the process of being converted, from bags into raised beds. We are moving towards a No Till program. This will improve the organic matter in the soil, increase infiltration, improve soil structure, reduce erosion, increase the granular structure to surface, increase the soil aggregate stability, and allow more water holding capacity. It will also allow less soil ponding. We leave the root biomass in the soil, and we try to leave the micropore structure as undisturbed as possible. Ultimately this will increase the plant available water, and it also creates pathways for nutrients to travel with ease. Conservation Tillage will, when implemented correctly, improve soil, water and air quality. That is most certainly what we are striving for.**

**Secondly, we have a strict, and well monitored, Nutrient Management Program in place at Native Humboldt Farms. We want to ensure that we are limiting the amount of excess nutrients that are being transported into the surrounding habitat and watershed through runoff. In order to do this, the first thing we do is make sure that we are not applying any excess of nutrients to the plant beds. We also make sure that we are applying nutrients in the most efficient ways possible. We use foliar sprays, as well as root feed through compost teas. We want to give the plant the best chance at absorbing the nutrients that we are introducing. We want to know that the nutrients are actually being absorbed and not just running off in excess. Using compost teas as a way to apply our nutrients, helps to eliminate negative environmental impacts of nutrient run off. By creating live soil, and ensuring that there is an excess of living organisms in the soil, we allow the plant the best chance of being able to uptake the nutrients. The live organisms in the compost teas do part of the work for the plants. They help to break down the nutrients so that the plants can uptake them more easily. This helps to ensure that the nutrients are actually absorbed and helps prevent excess nutrient runoff into the environment. Unfortunately, all nutrient cycles are somewhat leaky, but we certainly try to use the best possible nutrient management practices to minimize the negative environmental effects as much as we possibly can. We spray with kelp at 0-17-0 once a week during the first four weeks of our cycle. We water with a compost tea once a**

**week, every week of our cycle. The Nutrients included in the compost tea are: Kelp, Seabird Guano, Molasses, worm castings, and compost. We will be conducting soil testing once every two months. We will test for microbes in an attempt to control the soil**

**environment, and allow the best possible combination of living organisms that most benefit the plants and nutrient absorption. We will also be testing for nitrogen, phosphorus, potassium and soil organic matter. The goal is to ensure there is not an excess of any one nutrient, therefore reducing the risk of excess nutrient runoff into the environment. We will also be testing the PH level of the water used for irrigation to ensure it is at the optimal level. This will make sure that the plants have the best chance of functioning properly. The goal is to ensure the proper uptake of water and nutrients to prevent erosion and nutrient runoff into the environment. All of our nutrients are stored in a storage shed and all are securely strapped down to prevent movement.**

**As far as a Pest Management Plan at Native Humboldt Farms, we are very proactive and believe the only solution is preventive measures. We create our own clones, so we are able to make sure each plant is healthy from start to finish. We use a Biological Integrated Pest Management System. Our entire Pest Management System revolves around our Nutrient Management Program, and our sole use of compost teas. The idea is to create live soil. We create the ideal environment for the plant to thrive. The presence of live organisms in the soil aid in the breakdown of nutrients and therefore help each plant to function at its optimal capacity. Biological Integrated Pest Management helps the plants to be stronger, more resistant and more resilient to pests and pathogens. We choose not to use chemical pesticides. Instead we try to do everything we can do to utilize other strategies in an attempt to reduce environmental hazards associated with pest management. Compost teas can be looked at as a Biological Integrated Pest Management approach. The goal is to help prevent problems from developing as opposed to waiting until there is an infestation and then killing it with chemical pesticides. We use living organisms in an attempt to suppress populations of other pests and prevent them from getting out of control.**

**Water Storage: We currently have 26,000 gallons of water storage on site in plastic tanks that are various sizes ranging from 1000 gallons up to 2500 gallons. In January we begin to pull from our deeded spring that has been approved by fish and wildlife and proven to not affect any of the surrounding watersheds. Its essentially a horizontal well that flows out of the side of a mountain. We were deeded access in 1904. January-April we pull 17,000 gallons from the approved spring and store for use throughout the season. The total sq footage catchment area is 1130 SQFT with assuming 75% efficiency gives us approximately 600 gallons of water per inch of rain which is enough to fill the rest of our tanks. We conserve water through living soil.**

**FIRE STORAGE : We have a 2500 gallon water tank near the road dedicated to CAL FIRE.**

**We take all of our own clones at Native Humboldt Farms. We break the square footage down into three cycles of three different runs to stagger the process and ensure optimal use of space, function, and production. We have 10 beds totaling 4,670 sq ft. Cycle one, which I will refer to as C1, includes beds 1,2,and 3 and totals 1440 square feet. Cycle two, which I will refer to as C2, consists of beds 4,5, and 6 and totals 1440 sq ft. Cycle three, which I will refer to as C3, consists of beds 7,8,9, and 10 and totals 1790 sq ft. We will complete three cycles in each of three runs, which I will refer to as R1, R2, and R3. Following is a schedule of activities of each month of the growing and harvesting season.**

**January 2017: Starting in January 2017, we will be starting the mothers of our cloning program.**

**February 2017: Starting the first week of February 2017 we will be taking approximately 600 clones for C1 R1. These clones will incorporate approximately 1450 square feet of growing space, and will be planted approximately April 1st. The next week in February will be spent continuing to root clones for C1 R1. Week three we will start to take clones for C2 R1. C2 make up approximately 1440 square feet of growing space and incorporates bed 4,5 and 6. C2 R1 will be planted the third week in April. Week four we will continue to roots clones for C1 and C2 of R1, upsizing the clones into four inch pots as needed.**

**Different strains root at different times, some certainly take longer than others. Some clones could root in as little as two weeks. Some strains may take up to seven weeks. The weather plays a huge role in the amount of time it will take for a specific plant to root. Our proposed schedule may vary a little from our original plan depending on rooting times and weather etc. We will startour clones in rooting cubes, and eventually transplant them into four inch pots as needed. Eventually they will be transplanted from the four inch pots into the beds.**

**March 2017: The first week in March 2017, we will continue to care for and root clones for C1 R1 and C2 R1 upsizing as needed. Week two of March we will start taking and rooting clones for C3 R1. The last two weeks in March will be spent taking care of, rooting and**

upsizing clones for C1, C2, and C3 of R1. A total of approximately 1800 clones will be taken in R1 and will eventually encompass approximately 4700 square feet of growing space in beds 1-10.

**April 2017:** April 1st 2017, depending on weather conditions, we will plant C1 of R1. We will transplant approximately 600 plants from four inch pots into beds 1,2, and 3. This will incorporate approximately 1450 square feet of our growing space. We will not be using supplemental lighting, but we will be using heaters to keep the plants warm in an attempt to help them in the growing process. Also, on April 1st, 2017 we will begin taking clones for C1 of R2. This will be approximately 600 clones that will eventually be upsized into four inch pots and then transplanted into beds 1,2, and 3 to encompass approximately 1450 square feet of our growing space. C1 of R2 will be planted the first week of June 2017. During the third week of April we will begin C2 of R1 into beds 4,5, and 6. We will not be using supplemental lighting, but we will be using heaters to keep the plants warm and

encourage healthy growth. We will transplant approximately 600 plants from four inch pots into beds to encompass approximately 1440 square feet of our growing space. During the third week of April we will also begin taking clones for C2 of R2. These clones will be transplanted into beds 4,5, and 6 in the third week of June 2017, and these plants will encompass approximately 1440 square feet of our growing space.

**May 2017:** The first week in May 2017, we will begin C3 of R1. We will transplant approximately 600 plants from four inch pots into beds 7,8,9, and 10. C3 of R1 will encompass approximately 1800 square feet of our growing space. During the second week of May we will be starting our clones for C3 of R2. We will take approximately 600 clones that will eventually be transplanted into beds 7,8,9 and 10 during the second week of July. The last two weeks in May we will be adding compost teas to C1, C2, and C3, aiding in their growth and preparing them for harvest. We will also continue taking care of, watering, and upsizing clones as needed for C1, C2 and C3 of R2.

**June 2017:** During the first week of June 2017, we will be harvesting, hanging and drying C1 of R1. Next we will take clones for C1 of R3. This will be approximately 600 clones taken that will eventually be upsized and then planted into beds 1,2, and 3 during the first week in August. During the first week in June, we will also be planting C1 of R2. We will transplant approximately 600 plants from four inch pots into beds 1,2, and 3. This will encompass approximately 1440 square feet. During the third week of June, I will be harvesting C2 R1. I will harvest, hang and dry C2 R1. We will begin taking clones for C2 R3. During the third week in June we will also be replanting C2 R2.

**July 2017:** During the second week in July 2017, we will harvest C3 R1. These plants will be hanged to dry. Next we will replant C3 R2. Next we will take clones for C3 R3.

**August 2017:** The first week of August 2017, I will harvest C1 R2 and hang and dry. Next will plant C1 R3. The third week in August I will harvest C2 R2 and hang and dry. Next I will plant C2 R3.

**September 2017:** During the first week of September 2017 I will harvest, hang and dry C3 R2. Next I will plant C3 R3.

**October 2017:** During the first week in October 2017 I will harvest, hang and dry C1 R3. The third week in October I will harvest, hang and dry C2 R3.

**November 2017:** The second week in November, I will harvest C3 R3.

#### **Processing Plan**

**We will be transporting all finished product to an outside processing facility for processing in Eureka Ca. The address of the processing facility is 514 W 14th street Eureka CA 95501.**

#### **Security Plan**

**We are in the process of completely fencing in the property to secure our grow sites. We have security cameras that monitor entry into the property. We also have dogs onsite as well as someone monitoring the property at all times.**