

# NPK

Strawberry plants need many nutrients to be healthy and productive.

**The 3 most important nutrients are:**

- Nitrogen (N)
- Phosphorus (P)
- Potassium (K)

**Why N-P-K are important:**

Nitrogen helps plants develop leaves and roots.

Phosphorus promotes more flower blooms and root development.

Potassium increases the number and size of the berries. It also helps plants fight off insects and diseases.

# Fertilizers

UN-32 contains 32% nitrogen, CAN-17 has 17% nitrogen.  
\*\*You need to use nearly 2 times the amount of CAN-17 compared to UN-32 to get the same amount of nitrogen.

UN-32 and CAN-17 have NO phosphorus or potassium.

Each fertilizer comes with 3 numbers that describe what is in the fertilizer. If a fourth number is present, it is sulfur (S).

For example: 15-15-15

Means 15% nitrogen, 15% phosphorus, and 15% potassium. Any other nutrients are listed on the fertilizer label.



# Fertilizer Recommendations

Use a total of 200 pounds of actual nitrogen (N) per acre per year.



First, Apply 100 pounds per acre of N-P-K to the middle of the beds when making rows (thirteen 50-lb. bags per acre of granular 15-15-15).

Apply an additional 100 lbs. of liquid N fertilizer during the year (about 4 lbs. per acre per week).



Then disk to form beds to bury fertilizer.



Short season varieties: Apply liquid fertilizer September through October, and late February through early May.  
Long season varieties: Fertilize early March-August.

# Fertilizer Calculations

**To calculate how many acres you have, use these calculations:**

Number of rows(\_\_\_\_) x number of feet between rows (\_\_\_\_) x length of rows in feet  
(\_\_\_\_) = (\_\_\_\_) square feet.

(\_\_\_\_) square feet ÷ 43,560 square feet = (\_\_\_\_) acres.

**To determine the gallons of fertilizer to apply each week, follow these calculations**

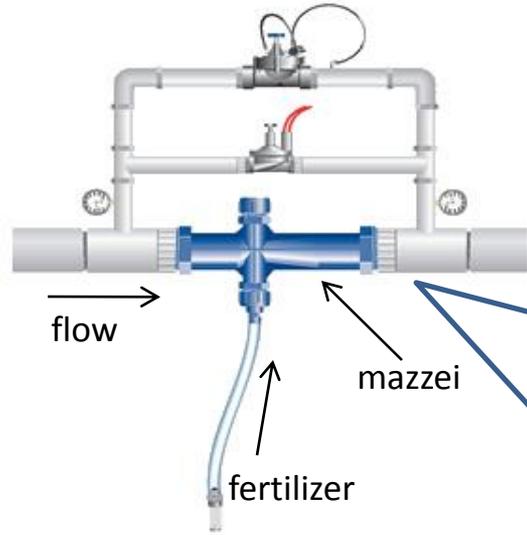
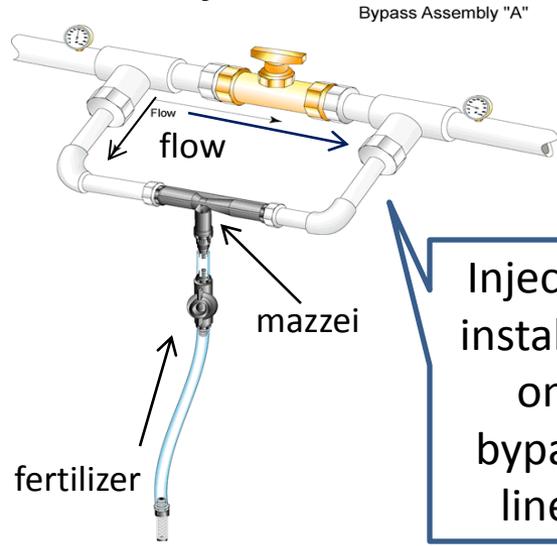
Gallons of fertilizer/acre = 4 lbs. N/acre ÷ (\_\_\_\_) lbs. N/gallon\*\* =(\_\_\_\_) gallons/acre.

\*\*UN-32 and CAN-17 weigh 11 lbs. per gallon. Therefore, UN32 contains 3.5 lbs. of N (11 lbs. x 0.32%=3.5 lbs.) and CAN-17 contains 1.9 pounds of N (11 x 0.17%=1.9 lbs.).

(\_\_\_\_) gallons/acre x (\_\_\_\_) acres = (\_\_\_\_) gallons/week for whole field.

# Fertilizer Injectors

## Mazzei injector:



The Mazzei injector provides a more even distribution of fertilizer across the field.

Pouring or siphoning fertilizer into the main line places more fertilizer at the

beginning of the rows than at the end of the rows.

## Other methods of injecting fertilizer:



A tube is used to siphon fertilizer into the main line.



Fertilizer is poured into the main line.

# Fertigation

Fertigation = Fertilizer + Irrigation

## Fertigation:

### How often and how long?

- Run irrigation for at least 15 minutes
- Inject fertilizer
- Run irrigation for another 45 minutes

## Important Rules:

- Make sure you have a filter and backflow prevention valve on your main irrigation line to avoid clogging the system and avoid contaminating the well.
- Keep records of when you fertilize.

## Batch Tanks

### How to mix fertilizer:

- Fill the tank half way with water
- Add the fertilizer and stir to mix
- Fill the tank all the way and mix well

## Fertilizer Sources:

Agriform (Woodland): (530) 666-5452

Wilbur Ellis (Elk Grove): (916) 776-2113

Crop Protection Services (Sacramento, near Mather Air Field): (916) 369-2891

## Leaf, Soil, and Water Analysis:

Sunland Analytical Lab (Rancho Cordova):  
(916) 852-8557