## Claudia's Soil/Fertilizer Practice Sheet

Nutrient Word Search
$\left.\begin{array}{|llllllllllllll}\hline N & C & U & O & I & N & O & T & E & S & M & M & Z & N\end{array}\right]$

|  | What's | Missing? |  |
| :---: | :---: | :---: | :---: |
| boron | copper | manganese | phosphorus |
| calcium | hydrogen | molybdenum | potassi |
| carbon | iron | nitrogen | sulf |
| lorine | magnesium | oxygen | zin |

My garden is looking sublime
The color-theme "pink all the time"
But what will I do?
My hydrangea is blue
I guess the solution is $\qquad$
"Use Greek: kalium," came the chorus
An unused initial's there for us
Potassium-K
Let's do it that way
It leaves us a P for $\qquad$

Decoding a chart or a table
Her confidence level was stable
Quick-acting or slow
Synthetic or no
The answer is found on the $\qquad$
Too early, the gardener took action.
So mushy, she often lost traction.
She worked the ground wet,
A fatal regret.
Her error led to soil $\qquad$

## Sample problems you might encounter:

The recommendation in the book says one pound of 5-5-5 vegetable food per $250 \mathrm{sq} . \mathrm{ft}$. You have a 4-6-2 rose food in the garage.

Can you use rose food on your vegetable garden? $\qquad$
Why? Or why not? $\qquad$

If you're going to use it, how much will you need to equal the 5-5-5?
Percentage you're

$\frac{\text { going from }}{\text { Percentage you're }}=$ factor $\mathrm{X} \quad$| Recommended |
| :---: |
| going to |$\quad=\quad$ New amount

$$
\frac{5 \%}{4 \%}=1.25 \quad \mathrm{X} \quad \begin{gathered}
2 \mathrm{lbs} . \\
\text { (of the 5-5-5) }
\end{gathered} \quad=\quad \begin{gathered}
2.5 \mathrm{lbs} . \\
\text { (of the 4-6-2) }
\end{gathered}
$$

If it is recommended that you apply nitrogen $(\mathrm{N})$ at the rate of one pound of N per 1,000 square feet of vegetable garden, how much 5-10-10 fertilizer will you need to apply to a $20^{\prime}$ by $25^{\prime}$ garden plot?

Recommended amount of nutrient
$\frac{\text { Recommended amount of nutrient }}{\text { Percentage of nutrient in product }}=\begin{gathered}\text { Amount of product needed } \\ \text { to get that amount of nutrient }\end{gathered}$
$\frac{1 \mathrm{lbs} .}{.05}=20 \mathrm{lbs} . / 1,000$ sq.ft.
Then, divide by 2 for the required 500 sq.ft. ( $20^{\prime}$ by $25^{\prime}$ ) or 10 lbs .

Soil Word Search

| $P$ | $D$ | $R$ | $A$ | $I$ | $N$ | $A$ | $G$ | $E$ | $T$ | $W$ | $E$ | $L$ | $U$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $H$ | $H$ | $W$ | $J$ | $I$ | $C$ | $Q$ | $N$ | $J$ | $G$ | $R$ | $N$ | $N$ | $V$ |
| $O$ | $C$ | $P$ | $N$ | $M$ | $T$ | $E$ | $X$ | $T$ | $U$ | $R$ | $E$ | $F$ | $C$ |
| $R$ | $L$ | $C$ | $B$ | $E$ | $O$ | $L$ | $C$ | $T$ | $M$ | $X$ | $V$ | $U$ | $O$ |
| $I$ | $A$ | $B$ | $D$ | $F$ | $I$ | $E$ | $C$ | $O$ | $A$ | $L$ | $F$ | $T$ | $M$ |
| $Z$ | $Y$ | $W$ | $I$ | $O$ | $Q$ | $U$ | $L$ | $B$ | $N$ | $U$ | $O$ | $J$ | $P$ |
| $O$ | $R$ | $U$ | $S$ | $M$ | $R$ | $M$ | $U$ | $G$ | $U$ | $K$ | $T$ | $H$ | $O$ |
| $N$ | $C$ | $O$ | $N$ | $T$ | $A$ | $I$ | $N$ | $E$ | $R$ | $W$ | $Q$ | $S$ | $S$ |
| $U$ | $G$ | $H$ | $S$ | $W$ | $C$ | $C$ | $K$ | $I$ | $E$ | $Q$ | $Q$ | $U$ | $T$ |
| $V$ | $O$ | $Q$ | $I$ | $J$ | $E$ | $R$ | $W$ | $L$ | $C$ | $D$ | $D$ | $R$ | $A$ |
| $T$ | $W$ | $W$ | $L$ | $W$ | $X$ | $O$ | $B$ | $Y$ | $E$ | $N$ | $U$ | $V$ | $M$ |
| $O$ | $H$ | $S$ | $T$ | $F$ | $F$ | $B$ | $S$ | $N$ | $A$ | $E$ | $L$ | $E$ | $C$ |
| $G$ | $P$ | $U$ | $M$ | $I$ | $C$ | $E$ | $Y$ | $S$ | $B$ | $E$ | $N$ | $Y$ | $C$ |
| $T$ | $E$ | $T$ | $V$ | $A$ | $A$ | $O$ | $R$ | $G$ | $A$ | $N$ | $I$ | $C$ | $R$ |


| What's Missing? |  |  |  |
| :--- | :--- | :--- | :--- |
| clay | horizon | organic | soil |
| compost | manure | pumice | structure |
| container | microbe | sand | survey |
| drainage | mulch | silt | texture |

