Reading Medication Labels and Inserts

Background: These worksheets are designed to help students learn to identify the different parts of a medicine label and insert. It would be valuable to have a PowerPoint slide with the answer bank for each worksheet.

Instructions:
- Distribute the Medication Insert and Medication Label worksheets to all participants.
- Once completed, discuss the correct answers.

Note: An alternative activity would be to obtain medicine inserts from a local veterinarian to show students real examples. Go over the different types of inserts with the students to show how to read warnings, special instructions, etc.

Processing Questions:
- Why is it important to know the components of a medication label and insert?
- What is the difference between a medication label and a medication insert?

Answers to Medication Insert worksheet:
1. Name of drug
2. Active ingredients
3. Species
4. Approved use
5. Dosage
6. Cautions & warnings
7. Route of administration
8. Storage requirements
9. Withholding times
10. Sizes available

Answers to Medication Label worksheet:
1. Name of drug
2. Active ingredient
3. Cautions and warning
4. Withholding time
5. Storage
6. Quantity of Contents
7. Name of distributor
8. Expiration date
Medication Insert

Before administering any drug to an animal, you must have a knowledge of the information found on the drug label. Identify the parts of the medication label.

1. _______________
2. _______________
3. _______________
4. _______________
5. _______________
6. _______________
7. _______________
8. _______________
9. _______________
10. _______________

**Omnibiotic**

(Hydrocillin in Aqueous Suspension)

Directions for use: See Package Insert

For use in Beef Cattle, Lactating and Non-Lactating Dairy Cattle, Swine and Sheep.

Read entire brochure carefully before using this product.

For intramuscular use only.

Active Ingredients: Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in an aqueous base.

Indications: Cattle - bronchitis, foot rot, leptospirosis, mastitis, metritis, pneumonia, wound infections. Swine - erysipelas, pneumonia. Sheep - foot rot, pneumonia, mastitis; and other infections in these species caused by or associated with hydrocillin-susceptible organisms.

Recommended daily dosage: The usual dose is 2 ml per 100 lb. of body weight given once daily. Maximum dose is 15 ml/day.

<table>
<thead>
<tr>
<th>Body Weight</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 lb.</td>
<td>2 ml</td>
</tr>
<tr>
<td>300 lb.</td>
<td>6 ml</td>
</tr>
<tr>
<td>500 lb.</td>
<td>10 ml</td>
</tr>
<tr>
<td>750 lb. +</td>
<td>15 ml</td>
</tr>
</tbody>
</table>

Continue treatment for 1 or 2 days after symptoms disappear.

Caution: 1. Omnibiotic should be injected deep within the fleshy muscle of the neck. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage. 2. If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated. 3. Treated animal should be closely observed for at least 30 minutes. Should a reaction occur, discontinue treatment and immediately administer epinephrine and antihistamines. 4. Omnibiotic must be stored between 2° and 8°C (36-46°F). Warm to room temperature and shake well before using. Keep refrigerated when not in use.

Warning: Milk that has been taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food.

How supplied: Omnibiotic is available in vials of 100 ml.
Medication Label

Before administering any drug to an animal, you must have a knowledge of the information found on the drug label. Identify the parts of the medication label.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

Omnibiotic
(Hydrocillin in Aqueous Suspension)

For use in Beef Cattle, Lactating and Non-Lactating Dairy Cattle, Swine and Sheep.

For intramuscular use only.

Recommended daily dosage: The usual dose is 2 ml per 100 lb. of body weight given once daily. Maximum dose is 15 ml/day.

<table>
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<tr>
<th>Body Weight</th>
<th>Dosage</th>
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</thead>
<tbody>
<tr>
<td>100 lb.</td>
<td>2 ml</td>
</tr>
<tr>
<td>300 lb.</td>
<td>6 ml</td>
</tr>
<tr>
<td>500 lb.</td>
<td>10 ml</td>
</tr>
<tr>
<td>750 lb. +</td>
<td>15 ml</td>
</tr>
</tbody>
</table>

Continue treatment for 1 or 2 days after symptoms disappear.

Store between 2° and 8°C (36-46°F).
Keep refrigerated when not in use.

Warning: Milk that has been taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food.

Net contents: 100 ml.

Distributed by USA Animal Health, Inc.

Destroy after April 3, 20XX
Lesson 6

Reading Feed Labels

**Background:** Participants should have an understanding of why it is important to properly store, label and account for all medicated feeds. This exercise will give them an opportunity to explore feed labels.

**Instructions:**
- Divide students into groups (one group = one *Feed Label* example).
- Distribute *Reading Feed Labels* worksheet to all participants, and give each group one *Feed Label* example.
- When the worksheet is complete, have participants share their answers.

Note: You can also bring real feed labels for the participants to look at.

**Processing Questions:**
- Did every label have an answer to all the questions? Were there any that didn’t?
- Was the information easy to find?
- Can medicated feed be used extra-label?
- Did the label list the withdrawal time, if any was required?
- Did it list what size animal the feed was formulated for?
- What happens if you don’t follow the label directions?
- How can not following the directions on a feed tag affect the quality of the meat produced from your animal?
- Why is it important to read the label every time?
- What other tasks do you do that require reading a label?

**Objectives**
- Youth will learn what information is included on a feed label.
- Youth will understand the importance of reading and following label instructions.

**Materials**
- Pencils
- *Feed Label* examples (3)
- *Reading Feed Labels* worksheet

**Timeframe**
5-10 Minutes

**Age**
All
Reading Feed Labels

1. What is the name of the feed? ____________________________________________

2. Who manufactured it? _________________________________________________

3. What size of animals should it be fed to? _________________________________

4. What form is the feed? ________________________________________________

5. What ingredients are in this feed? ______________________________________

6. What ingredient is in the largest quantity? ______________________________

7. Is this a medicated feed? ______________________________________________
   What medication(s) is (are) in the feed? _________________________________
   What is the withdrawal time for animals on this medicated feed? ________

8. How much protein is in this feed? ______________________________________

9. How many pounds are in the final feed mix? ______________________________

10. What can you tell by the order in which the ingredients are listed? ________
    _____________________________________________________________________

11. What are the feeding directions? ______________________________________

12. What cautions are listed? _____________________________________________
Reading Feed Labels - Label 1

SuperStart
AP-150
Medicated

For control of porcine colibacillosis (weaning pig scours) caused by susceptible strains of *ESCHERICHIA COLI*. Follow carefully the feeding directions and WARNING statement printed on the back of this label.

Active Drug Ingredient: Apramycin (as apramycin sulfate).............150 grams per ton

GUARANTEED ANALYSIS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Minimum/Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Protein, not less than</td>
<td>21%</td>
</tr>
<tr>
<td>Crude Fat, not less than</td>
<td>10%</td>
</tr>
<tr>
<td>Crude Fiber, not more than</td>
<td>2.50%</td>
</tr>
<tr>
<td>Vitamin A, I. Units per lb. (min)</td>
<td>6,000</td>
</tr>
<tr>
<td>Vitamin D3, I. Units per lb. (min)</td>
<td>750.0</td>
</tr>
<tr>
<td>Vitamin E, I. Units per lb. (min)</td>
<td>55.0</td>
</tr>
<tr>
<td>Riboflavin, mgs. per lb. (min)</td>
<td>4.5</td>
</tr>
<tr>
<td>Niacin, mg per lb. (min)</td>
<td>30.0</td>
</tr>
<tr>
<td>D-Pantothenic Acid, mg per lb. (min)</td>
<td>15.0</td>
</tr>
<tr>
<td>Choline, mg per lb. (min)</td>
<td>550.0</td>
</tr>
<tr>
<td>Vitamin B12, mg per lb. (min)</td>
<td>0.022</td>
</tr>
<tr>
<td>Menadione (Vitamin K), mg per lb. (min)</td>
<td>4.5</td>
</tr>
<tr>
<td>Biotin, mg per lb. (min)</td>
<td>0.09</td>
</tr>
<tr>
<td>Folic Acid, mg per lb. (min)</td>
<td>0.09</td>
</tr>
<tr>
<td>Pyridoxine, mg per lb. (min)</td>
<td>0.018</td>
</tr>
<tr>
<td>Thiamine, mg per lb. (min)</td>
<td>0.009</td>
</tr>
<tr>
<td>Lysine, not less than</td>
<td>1.60%</td>
</tr>
</tbody>
</table>

INGREDIENTS: Dried skim milk, dried whey, animal plasma, heat processed soybeans, fish meal, feeding oat meal, ground corn, meat and bone meal, corn distillers dried solubles, natural and artificial flavors added, sugar, yucca schidigera extract, dehydrated yeast culture, animal fat, cane molasses, monosodium glutamate, methionine, lysine, vitamin A acetate, D-activated animal sterol (source of vitamin D3), riboflavin supplement, niacin supplement, calcium panthothenate, choline chloride, vitamin B12 supplement, menadione dimethylpyrimidionol bisulfite (source of vitamin K), dl alpha tocopheryl acetate (source of vitamin E), biotin, folic acid, pyridoxine hydrochloride, thiamine mononitrate, calcium carbonate, salt, dicalcium phosphate, magnesium oxide, manganous oxide, ferrous sulphate, copper sulfate, cobalt carbonate, ethylenediamine dihydriodide, zinc sulphate and sodium selenite.

SuperGrow Feed Co. • Toledo, Iowa  52342

FEEDING DIRECTIONS: SuperStart AP-150, medicated is a highly palatable product formulated especially for baby pigs being weaned at three weeks of age or earlier and a special formulation for “tail enders” needing a nutritional boost.

Begin feeding SuperStart AP-150, medicated, when pigs are approximately 5 lbs. body weight (1 week of age) and feed continuously and as the sole ration until the pigs have consumed at least 5 lbs. per pig or at least 7 to 10 days after weaning. NEVER WEAN AND CHANGE FEED SOURCE AT THE SAME TIME.

For “tail enders,” separate pigs according to size. It is recommended to group pigs by size and place them in groups of 20 or less with a weight difference of no more than 10%. Feed SuperStart AP-150, medicated, continuously and as the sole ration for at least 3 to 4 weeks or until pigs regain their healthy bloom.

SuperStart can also be used as a high nutrient dense product in any starting program to encourage early dry diet consumption.

NOTE: Strains of organisms vary in their degree of susceptibility to antibiotics. If no improvement is observed after the recommended treatment, diagnosis and susceptibility should be reconfirmed.

WARNING

DISCONTINUE USE OF THIS MEDICATED FEED
28 DAYS BEFORE SWINE ARE MARKETED FOR HUMAN CONSUMPTION

IMPORTANT: Store in a clean, dry area, free of all offensive odors.
Reading Feed Labels - Label 2

SuperPigPlus
CB

Medicated

Control of swine dysentery (vibrionic dysentery, bloody scours or hemorrhagic dysentery); control of bacterial swine enteritis (salmonellosis or necrotic enteritis caused by Salmonella Choleraesuis); aid in the prevention of migration and establishment of large Roundworm (Ascaris suum) infections; aid in the prevention of establishment of Nodular worm (Oesophagostomum) infections of swine. Follow carefully the feeding directions, CAUTION and WARNING statement printed on the back of this label.

Active Drug Ingredients

- Carboxad . . . . . . . . . . . . . . . . . . . . . . 0.0056% (50 grams per ton)
- Pyrantel Tartrate . . . . . . . . . . . . . . . . . 0.0106% (96 grams per ton)

Guaranteed Analysis

- Crude Protein, not less than . . . . . . . . . . . . . . . . . . . . . . . 19%
- Crude Fat, not less than . . . . . . . . . . . . . . . . . . . . . . . . . 4%
- Crude Fiber, not more than . . . . . . . . . . . . . . . . . . . . . . . . 4.0%
- Vitamin A, I. Units per lb. (min) . . . . . . . . . . . . . . . . . . . . . 3,000
- Vitamin D3, I. Units per lb. (min) . . . . . . . . . . . . . . . . . . . 375.0
- Vitamin E, I. Units per lb. (min) . . . . . . . . . . . . . . . . . . . . . 22.5
- Riboflavin, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . . . 2.3
- Niacin, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . . . . 15.0
- d-Pantothenic Acid, mg per lb. (min) . . . . . . . . . . . . . . . . . . 7.5
- Choline, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . . . . 350.0
- Vitamin B12, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . 0.011
- Menadione (Vitamin K), mg per lb. (min) . . . . . . . . . . . . . . 2.25
- Biotin, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . . . . 0.05
- Folic Acid, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . . . 0.045
- Pyridoxine, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . . 0.009
- Thiamine, mg per lb. (min) . . . . . . . . . . . . . . . . . . . . . . . . 0.0045
- Lysine, not less than . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1.20%

Ingredients:
Ground corn, feeding oat meal, dehulled soybean meal, fish meal, dried whey, animal plasma, meat and bone meal, flash dried blood meal, corn distillers dried solubles, wheat middlings, dehydrated alfalfa meal, sugar, animal fat, monosodium glutamate, methionine, lysine, natural and artificial flavors added, dehydrated yeast culture, yucca schidigera extract, cane molasses, vitamin A acetate, D-activated animal sterol (source of vitamin D3), riboflavin supplement, niacin supplement, calcium panthothenate, choline chloride, vitamin B12 supplement, menadione dimethylpyrimidinol bisulfite (source of vitamin K), dl alpha tocopheryl acetate (source of vitamin E), biotin, folic acid, pyridoxine hydrochloride, thiamine mononitrate, calcium carbonate, salt, dicalcium phosphate, magnesium oxide, manganese oxide, ferrous sulphate, copper sulfate, cobalt carbonate, ethylenediamine dihydroiodide, zinc sulphate and sodium selenite.

SuperGrow Feed Co. Toledo, Iowa 52342

Feeding Directions:
SuperPigPlus, CB, medicated is a highly palatable product formulated especially for baby pigs. When following an early weaning program (3-4 weeks of age), it is recommended that SuperPigPlus, CB, medicated, be started when pigs weigh approximately 18-20 lbs. body weight and feed until pigs weigh 50 lbs. body weight. It is recommended that early weaned pigs be fed the recommended amount of SuperStart prior to weaning and before pigs are placed on SuperPigPlus, CB.

For later weaning programs, SuperPigPlus, CB is recommended to be started when pigs weigh approximately 18 lbs body weight and feed until pigs weigh 50 lbs. body weight. NEVER wean and change feed source at the same time.

SuperPigPlus is also an excellent product for incoming feeder pigs. Feed SuperPigPlus CB for 7 to 14 days before changing to a complete grower product or utilizing a grind and mix program.

WARNING: DO NOT FEED TO SWINE WEIGHING MORE THAN 75 LBS. BODY WEIGHT. DO NOT FEED TO SWINE WITHIN 10 WEEKS OF HARVEST FOR HUMAN CONSUMPTION.

IMPORTANT: Consult your veterinarian for assistance in the diagnosis, treatment and control of parasitism.

CAUTION: CONSULT A VETERINARIAN BEFORE USING IN SEVERELY DEBILITATED ANIMALS.

IMPORTANT: Store in a clean, dry area, free of all offensive odors.
**SuperFin 950**

A highly concentrated swine supplement designed for rations being fed to high lean genotype growing and finishing swine. Follow carefully the feeding directions printed on the back of this label.

**GUARANTEED ANALYSIS**

<table>
<thead>
<tr>
<th>Component</th>
<th>Minimum Value</th>
<th>Maximum Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Protein, not less than</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>Crude Fiber, not less than</td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>Calcium (Ca), not less than</td>
<td>3.5%</td>
<td>3.75%</td>
</tr>
<tr>
<td>Calcium (Ca), not more than</td>
<td>4.75%</td>
<td></td>
</tr>
<tr>
<td>Phosphorus (P), not less than</td>
<td>2.00%</td>
<td></td>
</tr>
<tr>
<td>Salt (NaCl), not less than</td>
<td>2.50%</td>
<td></td>
</tr>
<tr>
<td>Salt (NaCl), not more than</td>
<td>3.50%</td>
<td></td>
</tr>
<tr>
<td>Iodine (I), not less than</td>
<td>0.0005%</td>
<td></td>
</tr>
<tr>
<td>Vitamin A, I. Units per lb.</td>
<td>12,000.0</td>
<td></td>
</tr>
<tr>
<td>Vitamin D3, I. Units per lb.</td>
<td>1,500.0</td>
<td></td>
</tr>
<tr>
<td>Vitamin E, I. Units per lb.</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Riboflavin, mg per lb. (min)</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>Niacin, mg per lb. (min)</td>
<td>60.0</td>
<td></td>
</tr>
<tr>
<td>d-Pantothenic Acid, mg per lb.</td>
<td>30.0</td>
<td></td>
</tr>
<tr>
<td>Choline, mg per lb. (min)</td>
<td>150.0</td>
<td></td>
</tr>
<tr>
<td>Vitamin B12, mg per lb. (min)</td>
<td>0.045</td>
<td></td>
</tr>
<tr>
<td>Menadione (Vitamin K), mg per</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>Biotin, mg per lb. (min)</td>
<td>0.18</td>
<td></td>
</tr>
<tr>
<td>Folic Acid, mg per lb. (min)</td>
<td>0.037</td>
<td></td>
</tr>
<tr>
<td>Thiamine, mg per lb. (min)</td>
<td>0.018</td>
<td></td>
</tr>
<tr>
<td>Lysine, not less than</td>
<td>3.25%</td>
<td></td>
</tr>
</tbody>
</table>

**INGREDIENTS:** Meat and Bone Meal, Dehulled Soybean Meal, Flash Dried Blood Meal, Fish Meal, Feeding Oat Meal, Corn Distillers Dried Solubles, Wheat Middlings, Corn Gluten Feed, Dehydrated Alfalfa Meal, Lysine, Animal Fat, Vitamin A Acetate, D-Activated Animal Sterol (Source of Vitamin D3), dl-Alpha Tocopheryl Acetate (Source of Vitamin E), Riboflavin Supplement, Niacin Supplement, Calcium Pantothenate, Choline Chloride, Vitamin B12 Supplement, Menodione Dimethlypyrimidinol Bisulfite (Source of Vitamin K), Biotin, Folic Acid, Pyridoxine Hydrochloride, Thiamine Mononitrate, Calcium Carbonate, Dicalcium Phosphate, Salt, Ethylenediamine Dihydriddiode, Manganese Oxide, Magnesium Oxide, Ferrous Sulphate, Copper Sulphate, Cobalt Carbonate, Zinc Sulphate, and Sodium Selenite.

**Super Grow Feed Co., Toledo, Iowa 52342**

**FEEDING DIRECTIONS:** SuperFin 950 is a non-medicated base mixing concentrate designed and formulated to be mixed with grain to produce complete rations for growing-finishing swine and breeding swine demonstrating a high lean growth potential and for breeding swine with a prolific genetic potential. The following are recommended rations for swine during various phases of life-cycle feeding.

**MIXING DIRECTIONS FOR GROWING AND FINISHING SWINE**

<table>
<thead>
<tr>
<th>Growing Swine Pig Weights (lbs.)</th>
<th>18-30</th>
<th>30-40</th>
<th>40-75</th>
<th>75-125</th>
<th>125-175</th>
<th>175-mkt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Shelled Corn, lbs.</td>
<td>1225</td>
<td>1325</td>
<td>1550</td>
<td>1600</td>
<td>1675</td>
<td>1725</td>
</tr>
<tr>
<td>SuperFin 950 (non-medicated) lbs.</td>
<td>450</td>
<td>450</td>
<td>450</td>
<td>400</td>
<td>325</td>
<td>275</td>
</tr>
<tr>
<td>SuperNurse, lbs.</td>
<td>300</td>
<td>200</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>SuperPac, lbs.</td>
<td>25</td>
<td>25</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Crude Protein, %</td>
<td>19</td>
<td>18</td>
<td>16</td>
<td>15</td>
<td>14</td>
<td>13</td>
</tr>
</tbody>
</table>

**MIXING DIRECTIONS FOR BREEDING SWINE**

<table>
<thead>
<tr>
<th>Pig Weights (lbs.)</th>
<th>75-125</th>
<th>125-175</th>
<th>175-mkt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Shelled Corn, lbs.</td>
<td>1550</td>
<td>1600</td>
<td>1675</td>
</tr>
<tr>
<td>SuperFin 950 (non-medicated) lbs.</td>
<td>450</td>
<td>400</td>
<td>325</td>
</tr>
<tr>
<td>Crude Protein, %</td>
<td>16</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

**Recommended rations for split-sex feeding from 75 lbs. body weight until swine reach desired market weight.**

<table>
<thead>
<tr>
<th>Pig Weights (lbs.)</th>
<th>75-125</th>
<th>125-175</th>
<th>175-mkt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Shelled Corn, lbs.</td>
<td>1550</td>
<td>1600</td>
<td>1675</td>
</tr>
<tr>
<td>SuperFin 950 (non-medicated) lbs.</td>
<td>450</td>
<td>400</td>
<td>325</td>
</tr>
<tr>
<td>Crude Protein, %</td>
<td>16</td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

Split-sex feeding has been shown to be the most economical method of producing lean and efficient growth in swine. Under such a feeding program, gilts and barrows are fed the same ration up to approximately 75 lbs. body weight.

Oats and barley may be substituted for a portion of the corn in the rations at left. The corn portion in the above rations is estimated to contain 8.5% crude protein.

---

**Group Activity Worksheet**
Calculating Dosage from Medicine Labels

**Background:** Teach participants about the importance of knowing the proper amounts of medication to use.

**Instructions:**
- Pass out copies of *Calculating Dosage from Medicine Labels* worksheet.
- Have participants complete the worksheet and discuss the process.
- **Answers:**
  1. Recommended dosage = 2 ml per 100lb. body weight.
  2. Minimum/Maximum dosage = 15 ml per day.
  3. Weight of animal = 175 lbs.
  4. Dosage = 175 x 2 ml per 100 lbs. = 3.5 ml of Omnibiotic.

**Processing Questions:**
- Why is it important to know the correct dosage for each pig?

---

**Objective**
To learn how to calculate medicine dosages.

**Materials**
Pencils

*Calculating Dosage from Medicine Labels* worksheet

**Timeframe**
3-5 Minutes

**Age**
12+
Calculating Dosage from Medicine Labels

When Sara weighed her show pig yesterday, he weighed 175 pounds. She has noticed that he is showing symptoms of pneumonia. Sara called the local veterinarian, who suggested that she treat the symptoms with Omnibiotic. Calculate the dosage for Sara’s pig.

**Calculation Steps:**

1. **Identify Recommended Dosage:**
   - Directions for use: See Package Insert
   - For use in Beef Cattle, Lactating and Non-Lactating Dairy Cattle, Swine and Sheep.
   - Read entire brochure carefully before using this product.
   - For intramuscular use only.
   - **Active Ingredients:** Omnibiotic is an effective antimicrobial preparation containing hydrocillin hydrochloride. Each ml of this suspension contains 200,000 units of hydrocillin hydrochloride in an aqueous base.
   - **Indications:** Cattle - bronchitis, foot rot, leptospirosis, mastitis, metritis, pneumonia, wound infections. Swine - erysipelas, pneumonia. Sheep - foot rot, pneumonia, mastitis; and other infections in these species caused by or associated with hydrocillin-susceptible organisms.
   - **Recommended daily dosage:** The usual dose is 2 ml per 100 lb. of body weight given once daily. Maximum dose is 15 ml/day.
   - **Body Weight** | **Dosage**
   - 100 lb. | 2 ml
   - 300 lb. | 6 ml
   - 500 lb. | 10 ml
   - 750 lb. + | 15 ml
   - Continue treatment for 1 or 2 days after symptoms disappear.

   **Caution:**
   1. Omnibiotic should be injected deep within the fleshy muscle of the neck. Do not inject this material in the hip or rump, subcutaneously, into a blood vessel, or near a major nerve because it may cause tissue damage.
   2. If improvement does not occur within 48 hours, the diagnosis should be reconsidered and appropriate treatment initiated.
   3. Treated animal should be closely observed for at least 30 minutes. Should a reaction occur, discontinue treatment and immediately administer epinephrine and antihistamines.
   4. Omnibiotic must be stored between 2° and 8°C (36-46°F). Warm to room temperate and shake well before using. Keep refrigerated when not in use.
   - **Warning:** Milk that has been taken from animals during treatment and for 48 hours (4 milkings) after the last treatment must not be used for food. The use of this drug must be discontinued for 30 days before treated animals are slaughtered for food.
   - **How supplied:** Omnibiotic is available in vials of 100 ml.

2. **Identify Minimum/Maximum Dosage:**

3. **Identify the weight of the animal:**

4. **Calculate dosage (weight x ml/lb = dosage):**
Properly Administering Medications

**Background:** Medications can be given to livestock in several different ways. Your veterinarian not only helps you select the most appropriate medication, but also the best way to administer it to the animal.

**Instructions:**
- Break the group into teams of two or three.
- Hand out a copy of the *Properly Administering Medications* worksheet to each participant, and one *Medication Label* worksheet to each group.
- When completed, have the groups share with each other the medications and how to use them.

Note: As an alternative to the exercise, provide examples of medication for the participants to use instead of the *Medication Label* worksheets.

**Processing Questions:**
- Did every label have an answer to all the questions? Any that didn’t?
- Was the information easy to find?
- Was this product over-the-counter or prescription?
- How did you know from looking at the products, the proper route of administration?
- What were some of the things you learned about your type of medication by doing the worksheet?
- What information was on all of the labels? Was it in the same place on all products?
- Think about some of the times medications have been given to your animals. What was the situation, and which route of administration was used?
- What can you do to improve your animals’ health by reading labels?
- Read the label of any products you may have used recently. Is there anything on that label you didn’t know before?
- What happens if you don’t follow the label directions?
- What is an extra-label use of the drug? Both prescription and over-the-counter products can have extra-label uses on the veterinarian’s prescription.

**Objectives**
- Youth will understand the role of medications in producing quality food products.
- Youth will be able to read a medication label to determine the appropriate route for administering different medications.

**Materials**
- Pencils
- *Properly Administering Medications* worksheet
- *Medication Label* worksheets (3)

**Timeframe**
5-10 Minutes

**Age**
All
Properly Administering Medications

Read labels and answer the questions on the worksheet. Be prepared to share answers with the rest of the group.

What is the name of the product? ______________________________________

What species or type of animal is this product approved for? ____________

What uses is this drug approved for? ________________________________

Who can administer this product? ________________________________

Does this make it an over-the-counter or a prescription product? _________

What is the proper dosage of this product? ____________________________

How should it be administered? ________________________________

Is there a withdrawal period for this product? If so, how long is it? _________

How should this product be stored? ________________________________

Who manufactured this product? ________________________________

Is there an expiration date? ________________________________

What other information is included on the label? ____________________________
**Properly Administering Medications**

**Medication Label 1**

**SuperCill**
300,000 units per mL
Injectable Antibiotic
FOR ANIMAL USE ONLY

DESCRIPTION: Each mL contains 300,000 units of milocillin; sodium citrate; povidone; lecithin; and water for injection.

INDICATIONS FOR USE: For the treatment of erysipelas in swine caused by *Erysipelothrix rhusiopathiae* (insidiosa).

WARNINGS: Discontinue use of this drug for the following time periods before treated animals are slaughtered for food: Swine – 7 days. Treatment should not exceed 4 consecutive days.

PRECAUTIONS: Sensitivity reactions to milocillin such as hives or respiratory distress, sometimes fatal, have been known to occur in some animals. If signs of sensitivity do occur, stop medication and call your veterinarian. If respiratory distress is severe, the immediate injection of epinephrine may be helpful. As with any antibiotic preparation, prolonged use may result in the overgrowth of non-susceptible organisms, including fungi. If this condition is suspected, stop medication and consult your veterinarian.

DOSAGE: The dosage for swine is 3,000 units per pound of body weight or one mL for each 100 lbs. of body weight once daily. Continue treatment at least one day after symptoms disappear (usually 2 or 3 days). Treatment should not exceed 4 consecutive days. If improvement is not observed, consult your veterinarian.

DIRECTIONS FOR USE: SuperCill should be injected deep within the muscle. Do not inject subcutaneously, into a blood vessel, or near a major nerve. The site of each injection should be changed. Use a 16 or 18 gauge needle, 1½ inches long. Administer with a sterile needle and syringe. The injection site should be washed with soap and water and cleaned with a disinfectant such as 70 percent alcohol. Warm the product to room temperature and shake well. Wipe the rubber stopper in the vial with 70 percent alcohol. Withdraw the suspension from the vial and inject deep into the muscle. Do not inject more than 10 mL into one site.

STORAGE: Store between 2° and 8°C (36° and 46° F). Protect from freezing. Shake well before using.

**Manufactured by:** Big S Drug Company, Toledo, IA 52342

**Medication Label 2**

**Repro-PEL**
Killed Virus • For use in swine only

PRODUCT DESCRIPTION: Repro-PEL is for vaccination of healthy breeding swine against infection by porcine parvovirus (PPV), erysipelas and Leptospirosis. Repro-PEL is a preparation of porcine parvovirus, and whole cultures of *E. rhusiopathiae* and six *Leptospira* serovars.

DISEASE DESCRIPTION: Porcine parvovirus and *Leptospira* are common agents of swine reproductive loss. While infection with any of these pathogens may produce subclinical disease, infection by PPV during pregnancy may result in fetal resorption, stillbirths, and fetal mummification. Infection by *Leptospira* during the second half of pregnancy may cause stillbirths or abortions; late term abortions are the most important economic effect of leptospirosis.

DIRECTIONS:
1. General directions: Shake vial and administer 5 mL intramuscularly using aseptic precautions.
2. Primary vaccination: A single dose of 14 to 60 days before breeding is recommended for sows. Gilts, however, should be given a single dose as near as possible to 14 days before breeding; if gilts are vaccinated sooner, persisting maternal antibodies may interfere with active immunization.
3. Revaccination: Revaccination with a single dose is recommended prior to breeding. Boars should be revaccinated semiannually.

PRECAUTIONS:
1. Store at 2°C to 7°C. Do not freeze.
2. Use entire contents when first opened.
3. Do not vaccinate within 21 days before slaughter.
4. Contains gentamicin as preservative.
5. If anaphylaxis occurs following use, administer epinephrine or equivalent.
6. Although this product has been shown to be efficacious, some animals may be unable to develop or maintain an adequate immune response following vaccination if they are incubating any disease, are malnourished or parasitized or stressed due to shipment or adverse environmental conditions.

For veterinary use only.

Big S Drug Co. Toledo, IA 52342
Super Iron 100
Injection
100 mg/mL
Iron Hydrogenated Dextran Complex
Approved by FDA
For use in Animals Only
For Intramuscular use only

Super Iron 100 is a sterile solution containing an equivalent to 100 mg elemental iron per mL with 0.5% phenol as a preservative.

Injectable Super Iron 100 is easy and economical to use. Injection into the muscle is rapid, safe, effective, quickly absorbed by the blood and goes to work immediately. With injectable Super Iron 100, the right dosage can be given to every animal with assurance that it will be utilized.

Treatment of baby pigs with Super Iron 100 prevents anemia and reduces losses due to iron deficiency. Adequate iron is necessary for normal, healthy, vigorous growth.

INDICATIONS: Super Iron 100 is intended for the prevention or treatment of iron deficiency anemia in baby pigs. Iron deficiency anemia occurs commonly in the suckling pig, often within the first few days following birth. As body size and blood volume increase rapidly from the first few days following birth, hemoglobin levels in the blood fall due to diminishing iron reserves which cannot be replaced adequately from iron in the sow's milk. This natural deficiency lowers the resistance of the pig, and scours, pneumonia, or other infections may develop and lead to death of the animal. Pigs not hampered by iron deficiency anemia are more likely to experience normal growth and to maintain their normal level or resistance to disease.

DOSAGE: Intramuscular injection. Prevention: 1 mL (100 mg) at 2-4 days of age. Treatment: 1 mL (100 mg). May be repeated in approximately 10 days.

DIRECTIONS FOR USE: Disinfect rubber stopper of vial as well as site of injection. Use a small sterile needle (20 gauge, 5/8 inch). Injection should be intramuscular into the neck.

Super Iron 100 cannot be considered a substitute for sound animal husbandry. If disease is present in the litter, CONSULT A VETERINARIAN.

SIDE EFFECTS: Occasionally pigs may show a reaction to injectable iron, clinically characterized by prostration with muscular weakness. In extreme cases, death may result.

NOTICE: Organic iron preparation injected intramuscularly into pigs beyond 4 weeks of age may cause staining of muscle tissue.

Sold by: Big S Drug Co.
Toledo, Iowa