## Practice problems

1. A farmer wishes to apply atrazine at 3 lbs ai/A. How much Aatrex Nine-O will be needed per acre?
2. A farmer wishes to apply $2,4-\mathrm{D}$ at 0.25 lb ae/A to barley. Saber herbicide contains 3.8 lb of $2,4-\mathrm{D}$ ae/gal. How many pints of product should be applied per acre? How many total gallons of herbicide will be applied to a 50 acre field?
3. Picloram can be applied to wheat at 0.25 oz ae/A. Tordon 22 K contains picloram at 2 lb ae/gal. How many acres can be treated with 1 gal of Tordon 22 K ?
4. You have calibrated your equipment to spray 50 gallons per acre. You need to spray 1 acre. The label calls for 3 pounds of formulation per 100 gallons of water. How many pounds of formulation should you add to the tank to make 50 gallons of finished spray?
5. A sprayer with a tank capacity of 300 gallons is calibrated for an application rate of 30 gallons per acre. An $85 \%$ wettable powder herbicide is to be applied. The label recommends applying 3 pounds of active ingredient per acre. How many pounds of herbicide product should be added to the spray tank?
6. How many acres can be treated from a spray tank holding 400 gallons if the rate of application is 20 gallons per acre?
7. You have a 5 acre grass pasture that is heavily infested with Canada thistle. To get rid of the thistle you decide to treat it with Tordon $22 \mathrm{~K}(2.0 \mathrm{lb} \mathrm{ai} / \mathrm{gal})$ at a recommended rate of 1.0 lb ai/a. Your 200 gal sprayer delivers $35 \mathrm{gal} / \mathrm{a}$ of water. How much Tordon 22 K should be added to the spray tank to treat the 5 acre pasture?
a. Assuming same pasture as question 16 , how much water should be added to the spray tank to treat the 5 acre pasture?
8. An applicator needs to spray a 35 acre field using Ally ( $60 \% \mathrm{df}$ ). The label directions recommend that 0.1 oz product/acre be applied. The applicator has a 200 gallon spray tank with a spray width of 33 ft . He measured off 132 ft . in the field, filled the spray tank to a given level with water, sprayed the measured distance and refilled the tank with 2 gallons of water.
a. What is the spray rate in gallons/acre?
b. How many acres can be sprayed with a full tank?
c. How many gallons are needed to spray the 35 acres?
d. How much Ally needs to be added to a full tank?
e. How many ounces of Ally are needed to treat the 35 acres?
