**Area of Circular Fields**

To find the area of a circle, multiply the radius of the circle (the distance from the center to the edge) by the radius of the circle by 3.14 (π). Yes, that is right — you want to multiple the radius of the circle by itself. The diameter is the distance from one edge of a circle, through the center point, to the opposite edge, or twice the radius.

\[
\text{Area in acres} = \frac{3.14 \times \text{radius in feet} \times \text{radius in feet}}{43,560 \text{ sq ft per acre}}
\]

1. **What is the area (in acres) of a circular field with a diameter of 1,320 ft.?**

2. **What is the area (in acres) of a circular field with a diameter of 2,640 ft.?**

3. **What is the area (in acres) of a circular field with a diameter of 3,000 ft.**
Answers:

1. **What is the area (in acres) of a circular field with a diameter of 1,320 ft.?**

   \[
   \frac{1,320}{2} = \text{radius of 660 ft.}
   \]

   \[
   \frac{3.14 \times 660 \times 660}{43,560 \text{ sq ft per acre}} = \frac{1,367,784 \text{ sq ft}}{43,560 \text{ sq ft per acre}} = 31.4 \text{ acres}
   \]

2. **What is the area (in acres) of a circular field with a diameter of 2,640 ft.?**

   \[
   \frac{2,640}{2} = \text{radius of 1,320 ft.}
   \]

   \[
   \frac{3.14 \times 1,320 \times 1,320}{43,560 \text{ sq ft per acre}} = \frac{5,471,136 \text{ sq ft}}{43,560 \text{ sq ft per acre}} = 125.6 \text{ acres}
   \]

3. **What is the area (in acres) of a circular field with a diameter of 3,000 ft.?**

   \[
   \frac{3,000}{2} = \text{radius of 1,500 ft.}
   \]

   \[
   \frac{3.14 \times 1,500 \times 1,500}{43,560 \text{ sq ft per acre}} = \frac{7,065,000 \text{ sq ft}}{43,560 \text{ sq ft per acre}} = 162 \text{ acres}
   \]