

Acreage Conversions

Name: _____

Directions: Use this worksheet in conjunction with *We Grow Corn!* "Our Farm". To complete this worksheet, students will practice acreage and plant conversions and calculations.

Feet : Yards = Multiply by 3

Square Feet : Square Yards = Multiply by 9

Cubic Feet : Cubic Yards = Multiply by 27

Inches : Feet = Divide by 12

1. How many square feet are in one acre if one acre is 4,840 square yards?
2. How many square feet are in 20 acres?
3. How many square feet are in 150 acres?
4. How many square yards are in a 550 acre farm?
5. How many square yards are in a 7,000 acre farm?
6. Find the acreage for a plot of land that is 660 feet on one side and 400 feet on the other.
7. Find the acreage for a plot of land that is 1,200 feet on one side and 700 feet on the other.

8. Find the acreage for a plot of land that is 5,280 feet on one side and 2,640 feet on the other.

9. If the width of a field is 2,640-feet, how many passes would it take for a sprayer with a 70-foot boom to complete spraying that field?

10. Using the same field, how many passes would it take for a sprayer with a 132-foot boom to complete spraying that field?

11. If a farmer plants 640 acres of corn at two-inch depth, what is the total volume of land being used in square feet?

12. If a farmer plants 40 acres of corn at two-inch depth, what is the total volume of land being used in square feet?

13. If bags of seed corn contain 80,000 seeds, how many bags would you need to plant 640 acres at 30,000 seed population?

14. If bags of seed corn contain 80,000 seeds, how many bags would you need to plant 40 acres at 30,000 seed population?

15. How many corn plants would be on a 750 acre farm that plants 30,000 population?

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1. How many square feet are in one acre if one acre is 4,840 square yards?

$$4,840 \text{ square yards} \times 9 = 43560 \text{ square feet}$$

2. How many square feet are in 20 acres?

$$43560 \text{ square feet} \times 20 \text{ acres} = 871,200 \text{ square feet}$$

3. How many square feet are in 150 acres?

$$43,560 \text{ square feet} \times 150 \text{ acres} = 6,534,000 \text{ square feet}$$

4. How many square yards are in a 550 acre farm?

$$4,840 \text{ square yards} \times 550 \text{ acres} = 2,662,000 \text{ square yards}$$

5. How many square yards are in a 7,000 acre farm?

$$4,840 \text{ square yards} \times 7,000 \text{ acres} = 33,880,000 \text{ square yards}$$

6. Find the acreage for a plot of land that is 660 feet on one side and 400 feet on the other.

$$660 \times 400 = 264,000 \text{ square feet} / 43,560 \text{ square feet} = 6.06 \text{ acres}$$

7. Find the acreage for a plot of land that is 1,200 feet on one side and 700 feet on the other.

$$1200 \times 700 = 840,000 \text{ square feet} / 43,560 = 19.28 \text{ acres}$$

8. Find the acreage for a plot of land that is 5,280 feet on one side and 2,640 feet on the other.

$$5,280 \times 2,640 = 13,939,200 \text{ square feet} / 43,560 = 320 \text{ acres}$$

9. If the width of a field is 2,640-feet, how many passes would it take for a sprayer with a 70-foot boom to complete spraying that field?

$$2,640 / 70 \text{ feet} = 37.7 \text{ passes (round to 38)}$$

10. Using the same field, how many passes would it take for a sprayer with a 132-foot boom to complete spraying that field?

$$2,640 / 132 \text{ feet} = 20 \text{ passes}$$

11. If a farmer plants 640 acres of corn at two-inch depth, what is the total volume of land being used in square feet?

$$43,560 \times 640 \times (2 / 12) = 4,627,814.4 \text{ cubic feet}$$

12. If a farmer plants 40 acres of corn at two-inch depth, what is the total volume of land being used in square feet?

$$43,560 \times 40 \times (2 / 12) = 289,238.4 \text{ cubic feet}$$

13. If bags of seed corn contain 80,000 seeds, how many bags would you need to plant 640 acres at 30,000 seed population?

$$(640 \times 30,000) / 80,000 = 240 \text{ bags}$$

14. If bags of seed corn contain 80,000 seeds, how many bags would you need to plant 40 acres at 30,000 seed population?

$$(40 \times 30,000) / 80,000 = 15 \text{ bags}$$

15. How many corn plants would be on a 750 acre farm that plants 30,000 population?

$$750 \times 30,000 = 22,500,000 \text{ plants}$$