

Geocaching Activity Role Play Handout

FARMER

Pretend you are a Farmer. You need to map the locations of a wetland, corn field, areas that need nitrogen (a fertilizer), pheasant nests and a windmill on your property. You have the GPS (Global Positioning System) coordinates of each of these locations (in reality they will be hidden cache boxes), but now you need to walk to each location to make sure these coordinates are correct. You will be rewarded if you find each location. Use your GPS unit to find the coordinates of each location using the following directions.



The first location is a wetland. Farmers need to map the wetlands on their property because it is against the law to damage large wetlands. This means farmers cannot plant crops on wetlands or apply fertilizer to the wetland. It is against the law to damage large wetlands because they catch and filter pollutants which prevents them from entering our drinking water, lakes and streams. Use your GPS unit to find the imaginary wetland at _____.



The second location is a corn field. A farmer needs to map his or her corn field to know where to plant seeds and irrigate. Some farmers use GPS when they are harvesting their corn to calculate how much corn they are harvesting in each location. This helps them know if the plants are getting enough water and fertilizer. Use your GPS unit to find the imaginary corn field at _____.



The third location is an area in the corn field that is lacking nitrogen. Nitrogen is a fertilizer that farmers use to grow healthy crops, including corn. A farmer can tell if plants aren't getting enough nitrogen if the leaves on the corn are yellow instead of green. Farms can then use GPS to pin point where they need to apply nitrogen so they don't waste money, time and the potential for water pollution if they applied nitrogen where it wasn't needed. Use your GPS unit to find the imaginary area in your corn field that is lacking in nitrogen at _____.



The fourth location is a grouping of pheasant nests. Pheasants are birds that are a little bit smaller than turkeys. Pheasants live in Michigan and are beautiful birds. Wooded areas on the edges of corn fields are popular areas for pheasant nests because the birds use the plant material to build their nests and they eat the left-over corn. Farmland provides habitat for many animals and birds and it is important that farmers help protect this habitat. Use your GPS unit to find the imaginary pheasants nests at _____.



The fifth location is a windmill. Windmills produce energy which can then produce electricity. Farms can be good locations for windmills because there aren't many buildings around to block the wind. Farmers can use GPS to find the windiest locations on their farm to select placement of their windmill. The more wind, the more electricity that is produced. Wind generated power is a natural source of electricity that does not cause any pollution. Use your GPS unit to find the imaginary windmill at _____.