Programming Case Study - General Analytical Programming

I implemented this solution using Java 8 and no external libraries.

All source is located at https://github.com/meadot01/FarmProblem

Coordinate - Model class holding an x,y coordinate
Rectangle - Model class holding two Coordinates to make a rectangle

Farm solution - this is the solution code. It works as follows:

- It first reads the rectangles of barren land from the passed parameters and stores these in a list of Rectangles.
- It then loops through each of the Coordinates in the grid.
- If the Coordinate is barren land or if it is already in a known fertile grouping we skip the coordinate.
- Otherwise create a new set of fertile coordinates and add this Coordinate.
- Recursively check each bordering Coordinate and add them to the same fertile set if they are valid.

Example run log:

```
$java -Xss512m -cp . FarmSolution "0 292 399 307"
Fertile land areas = 116800  116800

$java -Xss512m -cp . FarmSolution "48 192 351 207" "48 392 351 407"
"120 52 135 547" "260 52 275 547"
Fertile land areas = 22816  192608
```