Carefully read the description of the experiment below. Be prepared to answer the questions that follow the design description as a class quiz.

This study examined the effects of the addition of _Entada abyssinica_ prunings on maize yield and soil properties. This tree species is abundant and available so it was tested as a "green manure" where leafy biomass is added to the soil to increase fertility and reduce dependence on inorganic fertilizers. The large field used for this research was divided into five rows. Each row was then divided in five 30 x 15m plots (25 plots in all) and each plot then received one of the following types of additions: (1) a control, no addition, (2) 1.25 kg of cuttings added and mixed into the soil with a hoe, (3) 1.25 kg cuttings mulched on the surface, (4) 2.50 kg of cuttings added and mixed into the soil with a hoe, (5) 2.50 kg cuttings mulched on the surface. Each row received all 5 of the additions in randomly selected plots, separately randomized for each row.

The plots were planted in corn (i.e. maize) and numerous soil characteristics and soil nutrient levels were measured. We will concern ourselves only with the total yield of corn from each plot at the end of the experiment.

Answer choices:	(A) yield	(B) addition type	(C) soil characteristics
	(D) a row	(E) a plot	(F) a corn field

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Name _____   Quiz Number _____   Date _____ / _____ / 2010

Circle the appropriate letter for each question below.

1) **What is the experimental unit for this experiment?**   A   B   C   D   E   F   G

2) **What is the sampling unit for this experiment?**   A   B   C   D   E   F   G

3) **What is the dependent variable for this experiment?**   A   B   C   D   E   F   G

4) **What is the treatment variable for this experiment?**   A   B   C   D   E   F   G

5) **If the design is RBD, what are the blocks?**   A   B   C   D   E   F   G   NA

6) **Does it seem more likely that the treatments are fixed or random?**   (A) fixed   (B) random

7) **What is the treatment arrangement for this experiment?**   (A) single factor   (B) factorial   (C) nested

8) **What is the experimental design for this experiment?** (A) CRD   (B) RBD   (C) LSD   (D) Split-plot   (E) Repeated measures

9) **The degrees of freedom for testing treatment are _____ .**

10) **The degrees of freedom for the error used for testing treatments are _____ .**