CHAPTER 6
CONCLUSIONS

The results of the field surveys and experiment carried out during March to August 1995 in North-Eastern mountainous region of Vietnam showed that:

1. Food legumes play an important role in farming systems in the region. With the traditional foods, food legumes had become the necessary food sources in the daily meals of the indigenous people. They have also been used as a fodder for animal production in the self-sufficient economy of the households. In the cropping systems, food legumes were considered as a sound ecological component in terms of soil fertility improving, rationally utilizing natural resources such as, soil, water, climate as well as labor resources.

2. However, now, food legumes are still considered as minor crops, and they are only grown in the marginal lands with low inputs. One of the most important reasons was low and unstable productivity of food legumes.

Adverse soil conditions such as low pH, deficiencies of N, and P were major factors limiting growth, development and yield of food legumes. Apart from these, low price, poor marketing and transportation as well as lack of capital of farmers also restrained food legume production in the region.

3. N, P, and L applications proved to be possible soil improving measures for increasing productivity of soybean and peanuts in the soil conditions of the region. The combination application between N and P; N and L; P and L; as well as N, P, and L gave the higher yields than separate application. Applying L or N and L decreased responses of the plants to P in both soybean and peanuts. The highest yield was obtained when N, P, and L were applied together.

4. Soybean and peanuts responded differently to N, P, and L. Soybean responded more strongly to P than peanuts, but peanuts responded more strongly to N than soybean. There was no difference in responses of soybean and peanuts to L.

5. The highest profits were obtained when N, P, and L were applied together. In terms of economic return, liming gave the highest rate of return. As a result, with poor farmers who have limited capital, the best way for increasing profits would be

liming, but adding N or P with L decreased the rate of return. With richer farmers, N, P, and L could be applied together to obtain the highest profits.