

CHAPTER 5

CONCLUSIONS

1. Under adequate watering planting, soybean seeds had a field emergence index of 80% and higher. Under drought condition with soil moisture content of 7-11% during germination, soybean seeds had a field emergence index of 60-80%. If soil moisture content was lower than 6%, soybean seeds had a very low field emergence of lower than 10%. Soybean seeds could not tolerate the flooding conditions.

2. Field emergence of soybean seeds could be estimated from the standard germination by multiplying by the field emergence index of 80% for adequate water planting condition.

3. The water-limited germination test for soybean seeds done by planting the seeds in 1,000 g of sandy loam soil in plastic baskets size 19x26x6 cm, watering at 50%PAW or 62% of field capacity every 2 days, placing at room temperature, and evaluating 5 days after planting, could be used to evaluate the field emergence of soybean seeds under drought and in rainy season plantings only for high quality seeds.

4. Only high quality seeds with standard germination of 90% should be used for soybean planting under water stress conditions.