CHARPTER 5

CONCLUSION

The experiment studied leaf ages of Bua Bok three accessions; Nakhon Si Thammarat, Rayong and Ubon Ratchathani accession. The leaves were harvested at 7, 14, 21 and 28 days after emerging. The results found that the leave areas of all three accessions of Bua Bok were largest when aged approximately 28 days after emerging, before turning to yellow. At the same leaf age, Nakhon Si Thammarat had the largest leaf. This experiment showed that leaf age had direct effect on leaf size, fiber, protein, calcium and asiaticoside contents. The fiber, calcium and asiaticoside contents increased when the leaf age increased. The highest protein content was found at average leaf age 14 days after emerging. The highest asiaticoside content was mostly found in Ubon Ratchathani accession.

The experiment studied the influence of light intensity on nutrition and asiaticoside content. The Bua Bok was grown under 3 levels of light intensity, then harvested the mature leaves to analyze yield, fiber, protein, calcium, beta-carotene and asiaticoside contents. All accessions had the larger leaf area, longer petiole and more chlorophyll content at 93.30 $\mu mol/m^2/s$ than at 362.55 and 933.07 $\mu mol/m^2/s$, respectively. The Bua Bok grown under full sunlight (933.07$\mu mol/m^2/s$) had fresh weight, dry weight protein and asiaticoside content higher than those grown under shading.

The storage of dried powder of all accessions of Bua Bok for 1 month had the higher asiaticoside content than that stored for 4 months. The storage temperature of dried powder of Bua Bok at 4°C had the higher asiaticoside content than that stored at

ambient temperature. The color of dried powder of Bua Bok changed when stored at ambient temperature for 4 months, from green color to pale.