

## Chapter 6

### Conclusion

The results of the experimentation indicated that

1. *B. japonicum* S162 when used in conjunction with nitrogen-free medium pH 6.8 yielded the most Leonard jar grown soy bean dry weight (*Glycine max* cv CM 60, 1.98 g.plant<sup>-1</sup>) probably due to the ability of *B. japonicum* S162 to fix nitrogen efficiently at pH 6.8 when in *Glycine max* cv CM 60 root nodules.
2. All the three strains of *B. japonicum* S76, S78 and S162 were found to fix nitrogen poorly or none at all when nitrogen-free medium pH 5.0 was used to water soybean *Glycine max* cv CM 2, CM 60 and ST 2 in Leonard's jars.
3. There was no change in intracellular protein profiles of *B. japonicum* S76, S78 and S162 when transferred from buffered yeast extract mannitol medium (YMB), pH 5.5, to buffered YMB at pH 6.0, 6.5 and 7.0 for 12 h, 18 h, 24 h, 3 days and 5 days.
4. A 53 kDa intracellular protein was found to be labile. The preliminary N-terminal amino acid sequencing of the 53 kDa revealed the first four amino acids as asn ser val thr. The sequence is incomplete and needs to be confirmed.