NEW CONTRIBUTION OF THE STUDY

Thesis title: Research to generate promising dwarf Dendrobium clones by

breeding combined with mutation induction and in vitro culture.

Field: Crop Science; Code: 9.62.01.10.

PhD candidate: Nguyen Van Vinh

Supervisors: Assoc Prof. Dr. Bui Van Le and Dr. Bui Minh Tri

Educational institution: Nong Lam University, Ho Chi Minh City.

Issued number of Decision of thesis evaluation committee at University level:

Date of issuing decision:

Number of Acceptance Decision:

Issued date:

New findings of the thesis:

- 1. The thesis was a sequential and systematic research work on dwarf *Dendrobium* including breeding, selecting, evaluating as well as asexual propagation. Those studies enable to create several commercially potential Dendobium lines.
- 2. The study applied LED lighting technology in order to optimize *in vitro* culture protocols for mutant dwarf Dendrobium.
- 3. The study is combinations between conventional and modern biotechnological techniques, between protocorm induction and protocorm mutagenesis. These combinations helped to enhanced variation rates as well as numbers of new promising Dendrobium lines.
- 4. The study established an entire procedure for creating new hybrid as well as new mutant dwarf Dendrobium in a short time period. Thought evaluation, the three hybrid lines and three mutants dwarf Dendrobium were obtained.

Supervisors

PhD candidate

Assoc Prof. Dr. Bui Van Le

Dr. Bui Minh Tri

Nguyen Van Vinh