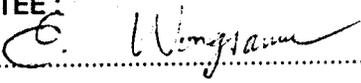


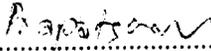
THESIS TITLE : ADOPTION OF SOYBEAN SEED PRODUCTION TECHNOLOGY OF
CONTRACT SEED GROWERS OF THE SEVENTEENTH SEED
CENTER CHANGWAT KHON KAEN

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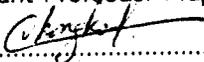
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ABSTRACT

The objectives of this research were to study (1) some selected basic socio-economic characteristics of contract seed growers, (2) soybean seed production of contract seed growers, (3) some conditions for the promotion of soybean seed production of contract seed growers, (4) the adoption of soybean seed technology of contract seed growers, and (5) comparison of the adoption of soybean seed production technology among contract seed growers who were different in average yield, capability in soybean seed production, and participation in training program on seed production. This research work used a sample group of 160 contract seed growers selected by stratified and systematic methods. Personal interviews were used in data collection. Data were analyzed by frequencies, percentage, arithmetic mean, minimum, maximum and Chi-square test .

It was found in this research that most of the contract seed growers were: male and having an average age of 48.3 years old, primary school level of education. an average of 6 family members. The major occupation was agriculture. The average land owned was 19.2 rai. The average family income per year was 51,225 baht. The average workers used in soybean seed production was 9 persons. The average area of soybean seed field was 5.9 rai. The average yield of soybean seed per rai was 169 kilograms. The average family income from soybean seed production was 12,330.7 baht. The percentage of farmers whose capability to produce seed 90 % or above 90 % of the target was slightly higher than those whose

capability to produce seed was less than 90%. The percentage of farmers who did not attend the training program on seed production technology was slightly higher than those who attended. Most of the farmers had the training program before the beginning of the seed production.

For the adoption of technology on soybean seed production, it was found that more than 90 % of the growers constantly followed the recommendations on 20 items. Four items which all farmers adopted included irrigating the field during flowering and pod forming stage, threshing seed by soybean threshing machine only, grading seed by hand sieve or machine sieve, and screening out the damaged seed, other crop seeds, and contaminated materials. Less than 90 % of the growers followed the recommendations on 32 items. There were 7 items which less than 50 % of the growers followed the recommendations. These included carrying out germination test before planting, applying manure 1,000-2,000 kg./rai, growing soybean in the same seed lot within 5 days, weeding twice in one growing season, applying chemical fertilizer before planting, roguing during seedling stage, and controlling termite, rat, bird and other pests during seed storing before selling.

When comparing the adoption of soybean seed production technology among the contracted seed growers who were different in average yields, capability of soybean seed production and the participation in training program on seed production. it was found that the seed growers with higher average yield, higher capability in seed production, and more participation in seed production training program adopted growing recommendations significantly more than those without training and whose average yield and seed production capability were lower. The practice adopted by the growers were : carrying out germination test, having at least one plowing before planting, the plot was not more than 2 metres wide, regular plant spacing of 50x20 cm., at least 3 m. of isolation distance, the same seed lot should grow soybean within 5 days, irrigation by furrow, applying chemical fertilizers before planting, applying chemical fertilizers by dressing in slit along plant rows and covering up, weed control should be applied 2 times, storing a soybean sheaf in the building, sun drying seed promptly after threshing, spreading out a soybean seed layer to the thickness of about 5 cm. every 3 hours.

The following are suggestions from research : 1) field inspection during harvesting and post harvesting period should be emphasized, 2) seed purchasing prices should be increased, 3) payment for purchased seed must be done more rapidly, 4) seed grading by hand should be dismissed, 5) farm machinery should be introduced to replace labour. 6) seed production training program should be organized and emphasized to farmers who had never been trained,

7) the appropriate suggestions should be made to farmers such as planting methods, fertilizing, weeding, roguing during seedling and growing stage, appropriate harvesting period by noticing pod colour, how to keep soybean seed while waiting for threshing, drying method and seed sack storing before selling, 8) carrying out germination test before planting should be introduced to practice, 9) supervising farmers on plowing, plotting preparation and regular plant spacing, and 10) advising farmers to modify their barns to keep soybean sheaf before threshing.