

primary and secondary schools for girls needs no justification. Whatever her future in life may be, a girl will in all probability, sooner or later, be concerned with the well-being of others, and a training in household-management (including cookery, hygiene, &c.), and the principles governing the maintenance of health, is absolutely essential, and must be regarded as an important part of a girl's educational equipment. One of the chief obstacles in making this work as interesting as it should be is the difficulty in obtaining fully qualified domestic-science teachers. Most of the domestic-science instructresses have little experience as teachers. A domestic-science mistress should have the ordinary class-teacher's training during the early years of her career, and later on specialize for two or three years. At present the Board is fortunate in possessing three teachers who are doing very satisfactory work in this subject: this, however, may only be temporary. In any future appointments it should be made clear that applicants should possess other qualifications than the certificates issued by the City and Guilds of London Institute. If possible we would strongly urge upon the Board the necessity of sending the District High School domestic-science mistress to Otago University for a period of three months, to have the advantages of the training that can be obtained there from Professor Boyd-Smith.

The girls from the primary schools take forty hours' instruction in cookery and forty hours in dressmaking during the year. Each lesson lasts two hours. We are of the opinion that the time devoted to dressmaking is too great. The course could be made more interesting and valuable if a little plain sewing, darning, &c., was introduced. The cookery course consists of elementary instruction in kitchen-management, methods of cooking, and demonstration and practice in preparing and cooking simple dishes. The high-school work is more advanced, and includes cookery, theory and practice; classification of foods; elementary domestic chemistry; marketing; household economy, including accounts; and table-setting.

Teachers' training classes were held during the year at Gisborne, Napier, Hastings, and Dannevirke. At Gisborne, Napier, and Dannevirke instruction was given in art and in elementary chemistry. Agricultural classes were held at Gisborne, Hastings, and Dannevirke. The results of the final examination showed that good work had been done throughout the year.

The following is an outline of the course of work in science subjects included in the rural course taken at the Hastings, Waipawa, and Woodville District High Schools:—

#### *Agriculture (Theoretical).*

*Section I.*—1. The soil and its contents: (a.) What the soil is—organic portion; inorganic portion. (b.) Soil-makers—water in its various forms; the atmosphere; organic life. (c.) What the soil does. 2. The soil and its physical properties: Colour, texture, capillarity, retentive powers, temperature, moisture; main classifications—clay, sand, loam, marl, and humus. 3. Soil-moisture: (a) Its importance; (b) how it is held; (c) how the moisture-holding capacity may be increased; (d) removal of water. Irrigation. Drainage. 4. Tillage: (a) What it is; (b) what it does; (c) implements used. 5. The fertility of the soil: (a) How it is lost; (b) how it may be maintained; farm resources; (c) commercial resources.

*Section II.*—1. The plant: (a) Its relation to the soil; (b) its relation to animal-life; (c) value to man. Parts—functions of the various parts and forms; how the plant feeds; soil food and air food. 2. Plant-propagation: Methods of propagation; seedage, seed-testing, selection, vitality, purity, &c.; necessities for germination—(a) warmth, (b) oxygen, (c) water; the raising and care of seedlings; bud-propagation—(a) detached buds, (b) undetached. 3. Preparation of the soil. 4. Care of the plants: Protection from weeds, insects, fungi and bacterial pests. 5. Pastures, meadows, and forage crops. 6. Manures: (a) Natural and artificial; (b) nitrogenous, potash, and phosphatic.

*Section III.*—1. Farm animals: Elementary anatomy of (a) how the animal lives; (b) feeding of animals; (c) use of different farm-animals; (d) stock-management.

#### *Agriculture (Practical).*

1. Setting out plots and paths: Grading; levelling; use of boning-rods, straight-edge, &c. 2. Trenching: (a) Single, (b) double. 3. Vegetable-culture. 4. Cereal-culture. 5. Root-culture. 6. Experimental work: (a) Plant-improvement; (b) plant-selection; (c) manurial tests; (d) physical properties of the soil—capillarity, porosity, retentive power. 7. Basket experiments with manures. 8. Culture-fluid experiments. 9. Seed-testing: Value of testing methods—(a) purity, (b) vitality, (c) utility value. 10. Basket experiments with different soils. 11. Plant-enemies: Insects, fungi, &c.; preventatives, &c.—sprays, Bordeaux mixture, arsenate of lead, &c.

#### *Dairy-work.*

*Section I.*—1. Milk and its composition: Water, fat, albumen, casein, lactose, and ash; percentage of ingredients; constancy of ingredients. 2. Milk-testing: Its importance; the Babcock tester; sampling milk; measuring; making the test; reading the test; testing the apparatus; the machine, test-bottle, pipette, acid-measure, thermometer, and lactometer. 3. Cream and its composition: Methods of creaming—gravity, dilution, cream-separator; testing cream for butter-fat; ripening cream; acidity; Marshall's acid and rennet test; the alkaline test. 4. Skim-milk: Its use as a by-product; composition; percentage of butter-fat. 5. The souring of milk: Milk-sugar; the action of lactic-acid bacilli on milk; acidity of milk. 6. Quevenne's lactometer, and its use in determining specific gravity and milk-adulteration. 7. Milk-preserved: Formalin, boric acid, silicic acid. 8. Separating cream from milk: The cream-separator. 9. Care of milk: Care of dairy utensils; need of cleanliness.

*Section II.*—1. Chemistry of butter-making. 2. Chemistry of cheese-making.

*Section III.*—1. The dairy cow: Points of a good cow. 2. Chief dairy breeds. 3. Value of different foods. 4. Effect of various foodstuffs on milk.