Dennis

SCHEME OF WORK AGRICULTURE FORM 2 2022

TERM I ENDARASHA BOYS

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| **WK** | **LSN** | **TOPIC** | **SUB-TOPIC** | **OBJECTIVES** | **T/L ACTIVITIES** | **T/L AIDS** | **REFERENCE** | **REMARKS** |
| **2** | 1 | INORGANIC FERTILIZERS | Macro- nutrients. Nitrogen. Phosphorus. Potassium. | By the end of the lesson, the learner should be able to:  To identify plants macronutrients.  To classify macro- nutrients as fertilizers and liming elements. To identify role of nitrogen in plants.  To state symptoms of nitrogen deficiency in plants  To identify role of phosphorus in plants. To state symptoms of phosphorus deficiency in plants.  To identify role of potassium in plants.  To state symptoms of potassium deficiency in plants. | List down macro- elements.  Q/A: Definition of an ion; expose ionic form of elements.  Discuss, giving examples the role of nitrogen and the deficiency symptoms. Discuss, giving examples the role of phosphorus and the deficiency symptoms of phosphorus.  Discuss, giving examples the role of potassium and the deficiency symptoms. | Yellowish-green / brown leaves.  Purple flowers. Curled leaves, Chlorotic leaves. | KLB BK II 1-2 |  |
| 2 | INORGANIC FERTILIZERS | Magnesium. Calcium. | By the end of the lesson, the learner should be able to:  To identify role of magnesium in plants. To state symptoms of magnesium deficiency in plants.  To identify role of calcium in plants.  To state symptoms of calcium deficiency in plants. | Discuss, giving examples the role of magnesium and the deficiency symptoms.  Discuss, giving examples the role of calcium and the deficiency symptoms. | Thin stems with reduced nodulation.  Tomatoes with blossom end rot. | KLB BK II Pgs 4-5 |  |
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|  | 3 | INORGANIC FERTILIZERS | Sulphur. Carbon, Hydrogen & Oxygen.  Micro- nutrients. | By the end of the lesson, the learner should be able to:  To identify role of sulphur in plants.  To state symptoms of sulphur deficiency in plants.  To explain the photosynthetic role of carbon, hydrogen and oxygen.  To identify plants micronutrients and state their roles.  To identify deficiency symptoms of minor nutrients in plants. | Discuss, giving examples the role of sulphur and the deficiency symptoms. Briefly highlight the role of carbon, hydrogen and oxygen in photosynthesis.  Q/A: Compare micronutrients with macronutrients hence define a micronutrient. Exposition: Teacher gives examples of micronutrients and exposes their roles and deficiency symptoms. | crop leaves  Chart: Macronutrients, micronutrients,  their ionic forms and deficiency symptoms. | Pg 5 |  |
| **3** | 1 | INORGANIC FERTILIZERS | Classification of Fertilizers. Straight and compound fertilizers.  Nitrogenous fertilizers. | By the end of the lesson, the learner should be able to:  To identify criteria used to classify inorganic fertilizers.  To distinguish between straight and compound fertilizers.  To give examples of:   * Straight fertilizers. * Compound fertilizers. To state characteristics of nitrogenous fertilizers. | Teacher briefly exposes the classification criteria.  Detailed discussion. Teacher presents the fertilizers and helps students to identify them.  Group experiments- Dissolving nitrogenous fertilizers in water.  Discussion: Other characteristics of nitrogenous fertilizers. Giving examples of nitrogenous fertilizers. | CAN ASN SA  DAP, MAP, Urea. (NH4)2 SO4 | KLB BK II Pg 8 |  |
| 2 | INORGANIC FERTILIZERS | Phosphatic fertilizers. | By the end of the lesson, the learner should be able to:  To state characteristics of phosphatic fertilizers. To give examples of phosphatic fertilizers. | Group experiment: Dissolving SSP in water and carrying out litmus tests.  Discuss further properties of SSP, DSP, TSP. | SSP DSP TSP | KLB BK II Pg 1-12 |  |
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|  | 3 | INORGANIC FERTILIZERS | Potassic fertilizers. Fertilizer Application. | By the end of the lesson, the learner should be able to:  To state characteristics of potassium fertilizers. To give examples of potassium fertilizers.  To describe methods of fertilizer application. | Group experiments: Solubility in water, litmus tests.  Discuss properties of KCl, K2SO4.  Q/A: Teacher elicits responses on methods of fertilizer application.  Brief discussion of the methods highlighted. Q/A: Advantages and disadvantages of each method. | KCl K2SO4 | PKLB BK II g 11-12 |  |
| **4** | 1 | INORGANIC FERTILIZERS | Fertilizer Rates. | By the end of the lesson, the learner should be able to:  To determine % of nutrient(s) of a fertilizer. To calculate fertilizer ratio.  To find the amount of fertilizer required per unit area (hectare). | Problem solving and explanations.  Worked examples. Supervised practice. | chart | KLB BK II Pg 14-15 |  |
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| 2 | INORGANIC FERTILIZERS | Carbon cycle and Nitrogen cycle. | By the end of the lesson, the learner should be able to:  To explain ways in which carbon / nitrogen is removed / returned to the atmosphere. | Assignment method / Group discussion. | Charts: Carbon cycle Nitrogen cycle. | KLB BK II Pg 16-20 |  |
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|  | 3 | INORGANIC FERTILIZERS | Soil Sampling. | By the end of the lesson, the learner should be able to:  To define soil sampling. To state methods of sampling soil.  To describe soil sampling procedures. | Expositions & Detailed discussion. | Charts: Transverse and ziz-zag soil sampling methods. | KLB BK II Pg 20-22 |  |
| **5** | MID TERM EXAMS AND BREAK | | | | | | | |
| **6** | 1 | INORGANIC FERTILIZERS | Soil Testing. | By the end of the lesson, the learner should be able to:  To define soil testing. To explain importance of soil testing.  To test soil pH.  To explain effect of soil pH on crops. | Q/A: Definition and importance of soil testing.  Q/A: Definition of pH in terms of acidity / alkalinity.  Class standard experiments: Determining soil pH. Discussion: Optimum pH range for crops. | Litmus paper, indicators, pH colour chart. | KLB BK II Pg 22-24 |  |
| 2 | CROP PRODUCTION II (PLANTING) | Seeds. Vegetative materials. | By the end of the lesson, the learner should be able to:  To state advantages and disadvantages of using seeds as planting materials.  To state advantages and disadvantages of using vegetative materials over seeds. | Teacher broadly classifies planting materials as either seeds or vegetative materials. Q/A: Advantages and disadvantages of using seeds compared to vegetative materials.  Q/A: Advantages of vegetative materials over seeds. | student book vegetative materials & seeds | KLB BK II Pg 27-28 |  |
| 3 | CROP PRODUCTION II (PLANTING) | Vegetative planting materials. | By the end of the lesson, the learner should be able to:  To identify plant parts used for vegetative propagation. | Present various parts of vegetative planting materials i.e. bulbils of sisal/ splits of grass/ pyrethrum, banana/ sisal suckers, Irish potato tubers, potato vines, and sugarcane setts. | Bulbils of sisal/ splits of grass/ pyrethrum, banana/ sisal suckers, Irish potato tubers, potato vines, and sugarcane setts. | KLB BK II Pg 28-34 |  |
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| **7** | 1 | CROP PRODUCTION II (PLANTING) | Selection of planting materials. | By the end of the lesson, the learner should be able to:  To explain factors to consider when selecting planting materials. | Detailed discussion with explanations of new concepts. | vegetative materials & seeds | KLB BK II Pg 34 |  |
| 2 | CROP PRODUCTION II (PLANTING) | Preparation of planting materials. | By the end of the lesson, the learner should be able to:  To explain some methods used to prepare planting materials. | Detailed discussion on breaking seed dormancy, chemical treatment, seed dressing and seed inoculation, chitting / sprouting. | vegetative materials & seeds | KLB BK II Pg 35 |  |
| 3 | CROP PRODUCTION II (PLANTING) | Time of planting. | By the end of the lesson, the learner should be able to:  To explain factors to consider in timing planting.  To identify advantages of timely planting. | Q/A and brief discussion. |  | KLB BK II Pg 38 |  |
| **8** | 1 | CROP PRODUCTION II (PLANTING) | Broadcasting method of planting.  Row planting. | By the end of the lesson, the learner should be able to:  To identify advantages and disadvantages of broadcasting method.  To state advantages and disadvantages of row planting. | Brief discussion.  Give examples of crops planted by broadcasting.  Q/A: Advantages and disadvantages of row planting. | video | KLB BK II Pg 39-40 |  |
| 2 | CROP PRODUCTION II (PLANTING) | Over-sowing and under- sowing.  Spacing of crops. | By the end of the lesson, the learner should be able to:  To distinguish over- sowing form under- sowing.  To explain the importance of correct spacing of crops.  To explain factors that influence crop spacing. | Brief discussion.  Give examples of such crops.  Q/A and discussion. Importance and factors. | video  Chart: Average inter- row and intrarow spacing of common crops. | v Pg 40 |  |
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|  | 3 | CROP PRODUCTION II (PLANTING) | Plant population. Seed rate. | By the end of the lesson, the learner should be able to:  To determine plant population in a given size of land.  To define optimal seed rate of a given crop.  To explain factors to consider in choosing seed rates. | Q/A: Inter-conversion of metric units.  Worked examples. Explanations and detailed discussion. | student book | KLB BK II Pg 42-43 |  |
| **9** | 1 | CROP PRODUCTION II (PLANTING) | Depth of planting. | By the end of the lesson, the learner should be able to:  To explain determinants of correct depth of planting. | Q/A & Detailed discussion.  Field activity: planting crops to the correct spacing.  Supervised field activities. | school farm | KLB BK II Pg 43-44 |  |
| 2 | CROP PRODUCTION II (PLANTING) | Depth of planting. | By the end of the lesson, the learner should be able to:  To explain determinants of correct depth of planting. | Q/A & Detailed discussion.  Field activity: planting crops to the correct spacing.  Supervised field activities. | school farm | KLB BK II Pg 43-44 |  |
| 3 | CROP PRODUCTION III (NURSERY PRACTICES) | Establishing a nursery. | By the end of the lesson, the learner should be able to:  To differentiate between a nursery and a seedbed.  To explain the importance of a nursery in crop propagation.  To enumerate factors considered when siting a nursery. | Q/A and explanations. Activity- Establishing a (vegetative) nursery / tea sleeves / sugarcane setts. | School farm. | KLB BK II Pg 46-48 |  |
| **10** | END OF TERM EXAMS | | | | | | | |

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