

**GROW BIOINTENSIVE AGRICULTURE CENTRE OF KENYA (G-BIACK)
TRAINING CURRICULUM 2015**

<p>Topic 1 (History/Philosophy and Overview)</p>	<p>Overview of GROW BIOINTENSIVE</p> <ul style="list-style-type: none"> -Basic Introduction to 8 Components -60/30/10 Design Concept -Basic Design Including Carbon- and Calorie-Efficient Crops -Interactions among 8 Components -Mini-Farm Design including Complete Diet and Compost <p>History/Philosophy</p> <ul style="list-style-type: none"> -History of Biointensive Agriculture -Conventional Agriculture vs. Biointensive and Organic Agriculture -Creating a Philosophy of Food Production -Biointensive Agriculture vs. Other Organic Agriculture Practices/ Tendencies <p>STUDENT PRESENTATIONS: SHARING EXPERIENCES FROM HOME</p>
<p>Topic 2 (Compost Part 1)</p>	<ul style="list-style-type: none"> -Compost Explanation and Demonstration -Basic GB Compost Recipe -Basic Compost Pile Management -Growing Compost Crops for Compost -GB Compost vs. Other Composting Techniques <p>STUDENT PRESENTATION: HOW TO MAKE COMPOST AND HOW TO APPLY IT</p>
<p>Topic 3 (Bed Preparation)</p>	<ul style="list-style-type: none"> -Bed Preparation Explanation and Demonstration -Soil Texture -Soil Structure -Body Techniques for Easy Double-Digging -Advantages of Double-Digging a -The Role of Roots -Interrelationship of Air, Water, Organic Matter and Biointensive Practices -Bed Preparation in Different Soils and Conditions: Trade-offs <p>STUDENT PRESENTATIONS: HOW TO PREPARE BED FOR SINGLE AND DOUBLE DUG;</p>
<p>Topic 4 (Close Spacing)</p>	<ul style="list-style-type: none"> -Off-set Spacing Explanation and Demonstration -Pricking Out Techniques -Transplanting Techniques -Advantages of Close Spacing -Variables that Influence Spacing Choices including Climate <p>STUDENT PRESENTATIONS: USE OF FLATS, TRANSPLANTING TO THE BED</p>

<p>Topic 5 (Carbon/Calorie Crops)</p>	<ul style="list-style-type: none"> -Carbon-and-Calorie Crops: Reasons Why GROW BIOINTENSIVE Includes Carbon-and-Calorie Crops -Familiarity with Local Carbon-and-Calorie Crops -Immature vs. Mature Compost Crops -Use of “60%” as a Design Concept (Area of Garden in Such Crops) -Compost Design for Garden -Different Benefits of Various Compost Crop Materials -Understanding Importance of Grain and Seed Crops for Diet and Soil Sustainability <p>STUDENT PRESENTATIONS: AVAILABLE CARBON-AND-CALORIE CROPS IN LOCAL AREA, HOW TO PLANT AND CARE FOR THEM IN A BIOINTENSIVE MODEL (STUDENTS CAN PICK DIFFERENT CROPS)</p>
<p>Topic 6 (Calorie-Efficient Crops)</p>	<ul style="list-style-type: none"> -Role of Calorie Crops: Why GROW BIOINTENSIVE Emphasizes Inclusion of High-Calorie Crops that are Area- and Weight-Efficient -Use of “30%” as a Design Concept (Area of Garden in Such Crops) -Advantages/Disadvantages of Different Crops Related to Efficiency <p>STUDENT PRESENTATIONS: AVAILABLE CALORIE-EFFICIENT CROPS IN LOCAL AREA, HOW TO PLANT AND CARE FOR THEM IN A BIOINTENSIVE MODEL</p>
<p>Topic 7 (Associations and crop Rotations)</p>	<ul style="list-style-type: none"> -Definitions and Examples -Plant Families in Rotations -Criteria for Companion Planting -Advantages/Disadvantages of Different Planting Combinations and Rotation Practices <p>STUDENT PRESENTATIONS: ASSOCIATIONS AND ROTATIONS</p>
<p>Topic 8 (Open Pollinated Seeds) Seed saving techniques</p>	<ul style="list-style-type: none"> -Descriptions of Open-Pollinated, Hybrid, Green Revolution and GMO seeds -Treated vs. Untreated Seeds -Self- vs. Cross-Pollination -Self-Pollinating Seed Collection -Cross-Pollinating Seed Collection -Selecting for Strain -Seed Processing -Seed Storage <p>STUDENT PRESENTATIONS: COLLECTION AND STORAGE OF PARTICULAR SEEDS</p>

Topic 9 (Compost Part 2)	<ul style="list-style-type: none"> -Carbon: Nitrogen -Proportions of Different Compost Recipes and Components -Compost Management (Temperatures, Processes, Stages) -Green Manure Use vs. Compost Crops and Compost -Growing Compost Crops - Crop residue management – Do not burn any trash -Importance of Carbon in Closed System -Role of Microbial Life -Organic Compounds in Compost - Farm Yard Manure Management <p>STUDENT PRESENTATIONS: (practical presentations)</p>
Topic 10 (Whole System)	<ul style="list-style-type: none"> -Importance of all 8 components of GROW BIOINTENSIVE -Basic Pest and Plant Disease Issues and Relationship to Whole System - Testing Soil with the Plants <p>STUDENT PRESENTATIONS: GENERAL GB PRESENTATION</p>
Topic 11 (Diet)	<ul style="list-style-type: none"> -Vegetarian vs. Animal Product Diets (comparing the area available) -Area Needed to Grow Different Diets -Diet Choices and their Environmental Impact <p>STUDENT PRESENTATIONS: DIETS THAT THEY CAN GROWN IN THEIR COUNTRIES AND THE AVAILABILITY OF AREA</p>
Topic 12 (Planning)	<ul style="list-style-type: none"> -Calendar of Garden Activities -Setting production targets -Planning Using Area -Year-Round Planning -Use of Catch Crops and Out-of-Season Crops -Season Extension - Food security strategies (When to plant what to plant) - Management practices of common crops (participants to suggest which crops are common in their country)and how to maximize production with best timing - Common Pests and diseases. (Dynamic Control measures and diverse cropping) -IPM -Nursery Management and establishment for seedlings and income
Topic 13 (Soil/ Sustainable Fertility)	<ul style="list-style-type: none"> -Basic Interpretation of Soil Tests (Macronutrients and Organic Matter) -Organic Soil Amendment Options -Importance of Closed-System Goal

Topic 14 (Income)	<ul style="list-style-type: none"> -Income-Producing Crops in GB Systems: Exporting Minimum from Closed System -Choosing Most-Profitable Crops -Income Production Design -Marketing/Evaluation of Market Possibilities: Advantages and Disadvantages of Different Markets -Growing and Saving Seeds for Sale?
Topic 15	<ul style="list-style-type: none"> - Soil erosion causes, effects and control – -Use of A frames for terracing, use of vetiver grass and other control measures -Water harvesting techniques - Environmental conservation including tree planting <p>PRACTICAL WORK AND DEMONSTRATIONS</p>
Topic 16	<ul style="list-style-type: none"> -Leadership skills -Communication skills -Training and visits techniques -Dealing with HIV and AIDS : Prevention and control -Nutrition <p>STUDENTS PRESENTATIONS</p>
GRADUATION AND AWARDING OF CERTIFICATES	