

INSTRUCTIONS for
GROW BIOINTENSIVE® DIET DESIGN AND PLANNING SOFTWARE
(c) 2010 Ecology Action, Willits, CA 95490, created by Ed Fernandez

Important: This software is intended for use in conjunction with the “Master Charts” data contained in *How to Grow More Vegetables and Fruits, Nuts, Berries, Grains and Other Crops Than You Ever Thought Possible On Less Land Than You Can Imagine* by John Jeavons. It also assumes that the end-user has a certain amount of familiarity with the *GROW BIOINTENSIVE* Diet Design process. As such, the instructions below are intended to address only certain functions of this software and are not intended to explain the foundational understanding or background knowledge necessary to fully employ it.

Warning: When you run the application, you will likely see a windows warning message that says “*The publisher could not be verified. Are you sure that you want to run this software?*” Simply press the “Run” button and disregard this message to run the application. (This software contains no malicious code.)

Software Requirements: The software will only function if the following operating system and application software are already installed on your computer:

Operating System - Windows 2000/XP/Vista/7

Application Software - Microsoft Excel 2000/XP/2003/2007

Reference Requirements: The software requires reference data contained in the following Ecology Action publications:

How To Grow More Vegetables... (2006) by John Jeavons

Booklet #31 -- “Designing A Grow Biointensive Sustainable Mini-Farm”

Ordering a License:

To order a license, please go to: <http://www.growbiointensive.org/GBDietDesign.html>

Your order will require your computer's "HARDWARE ID". This can be accessed in the following ways:

EXPIRED TRIAL VERSION – Press the "Copy Hardware Id" button on the expired software dialog box. Then, click on the "Contact Author" button in order to place your online order.

UNEXPIRED TRIAL VERSION – In the software, select the following menu items:

[DoneEx](#) -> [Application Diet Design Planning](#) -> [About](#)

Then press the "Copy Hardware Id" button on the “About” dialog box before proceeding to place your online order.

Please report any difficulties to Ecology Action technical support at: techsupport@growbiointensive.org

Installation: To install this software, please create a new directory folder on your computer (e.g. C:\GBDietDesign). The location and name of this folder can be whatever you wish. Next, copy the “*GB Diet Design and Planning.zip*” file into this folder and extract its contents (into this same folder). If you do not have any software on your computer to do this, then you may download and install either of the following free unzip software packages:

TinyZIP: <http://www.tinyzip.net/>

jZIP: <http://www.jzip.com/index.php?bt=c&r=502&gclid=CKOngO-WialCFR5Ogwod7AzzTw>

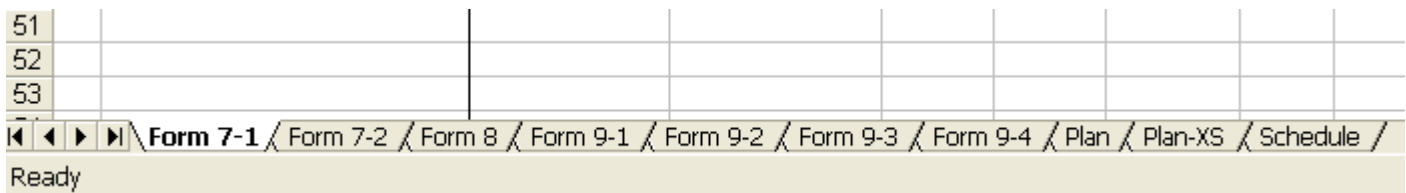
After you have extracted the files, a “*Sample Diet Design*” folder should be visible. This folder contains a sample Diet Design that may be viewed in PDF format. If you do not have a PDF viewer, you may download and install either of the following free PDF viewers:

Adobe Reader: <http://get.adobe.com/reader/>

Cool PDF Reader: <http://www.pdf2exe.com/CoolPDFReader.exe>

Finally, when you are ready to run the Diet Design application, simply double-click the “*GB Diet Design and Planning.exe*” file.

General: The term “bed” in this software (as in *How to Grow More Vegetables...*) refers to a planting bed that is 100 square feet. Cells that are shaded **light blue** are intended for data entry and are the only cells that one may select or enter data into. This software includes 10 different spreadsheets (or forms) that are accessible by clicking on their respective tabs, located at the bottom of your screen:

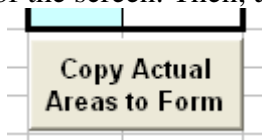


Form 7-1 DIET DESIGN (1): This is the initial Diet Design form and is intended to itemize the crops that you intend to evaluate and/or plant as part of your *Grow Biointensive 60-30-10 Diet Design*. In this initial form, your crops are grouped into 3 distinct categories: “Carbon/Calorie” crops, “Special Root” crops, and “Vegetable” crops that correspond to 60%, 30%, and 10% respectively of your total Diet Design. (Keep in mind that “Income” crops are intended to be entered into Form 8. These may be different crops than are found in Form 7-1 or they may be the same crops with an additional amount of growing beds dedicated for income purposes.)

The amount of the crops entered into this form may be entered in one of two ways: by desired “**Weight of Food Eaten Per Day**” or by the amount of “**Actual Area (Beds)**” dedicated to grow these crops:

Weight of Food Eaten Per Day can be entered directly into cells underneath this column heading.

Actual Area (Beds) can be entered underneath this column heading, found in the “Alternate Entry” form included on the rightmost part of the screen. Then, after all of the bed quantities are entered, press the “Copy



Actual Areas To Form” button.

(This will automatically copy your desired bed quantities into the main form, automatically calculating the corresponding “Weight of Food Eaten Per Day” values.)

Rehydration Ratio: When eaten, most crops do not gain water weight, so the amount of “*Dry Weight of Food Per Day*” is the SAME as the “*Eaten Weight of Food Per Day*”. For these crops, enter a value of “1” under the “*Rehydration Ratio*” column heading.

However, other crops such as grains and beans weigh more after cooking. These crops generally weigh 3 times their initial dry weight. For these crops, enter a value of “3” under the “*Rehydration Ratio*” column heading.

Finally, grains can be eaten as bread and/or tortillas, which generally only weigh double of the original dry weight. For these crops, enter a value of “3” under the “*Rehydration Ratio*” column heading.

Interplant Yield Ratio: When a crop is planted by itself without interplanting other crops *within the same portion of the bed*, please enter a value of “1” (which indicates that 100% of the estimated yield is expected.) Otherwise, please enter the anticipated decimal percentage (e.g. .8 = 80%, .2 = 20%, etc.) for your interplanted crop(s). For example, if you planted corn as a primary crop and interplanted with beans as a secondary crop, you might anticipate a 110% increase in corn yield with only a 10% yield in beans (due to the corn being the primary crop). In this example, you would enter the value of “1.1” for your interplanted corn crop and the value of “0.1” for your interplanted bean crop. If there are additional beds with corn and/or beans that are NOT interplanted, then these can be entered as additional crops on additional lines with the “*Interplant Yield Ratio*” values of “1”.

Crops Per Year: Enter the number of harvests (with the area then being *replanted* to another crop) that you intend to have of each crop per year. For example, unless you live in a tropical location, you would enter “1” for corn, but possibly “2” for carrots or beets. In addition, do *not* indicate that a crop like alfalfa, which is a perennial and has perhaps 5- cuttings (“harvests”) a year, has 5-6 harvests.

Months In Bed (non-interplanted only): Enter the value for how long each crop will require in their growing beds from the Master Charts in *How To Grow More Vegetables...* This value should be left blank for any crops that are interplanted as a secondary crop. For example, the interplanted beans in the above example would have no value entered in this field.

Weight per Person per Day: Please note the following average maximum amounts of food eaten per day: Women 5.5 lb (2.5 kg), Men 6.0 lb (2.7 kg)

Form 7-2 DIET DESIGN (2): Please enter the nutritional data from the Master Charts that correspond to your crops.

Form 8 INCOME DESIGN: The first crops entered in this form should be any Income crops that are also listed as “Carbon/Calorie” crops in the Master Charts.

Please enter the “*Months In Bed (non-interplanted only)*” data for your Income Crops using the same rules as described for Form 7-1. Enter the “*Actual Area (Beds)*” that you intend to dedicate for each of your income crops. Enter the “*Price per LB/KG or Packet*” for each of your income crops that corresponds to your regional market.

Is 60% Crop? (yes=1, no=0): For any income crops that are also “Carbon/Calorie” crops, please enter the value of “1”. For any other crops, please enter “0”. This field helps to include carbon/calorie income crops in subsequent “Compost” forms.

Form 9-1 COMPOST DESIGN (1): Please list any non-diet crops that will be used to provide “Immature or Green” compost materials to your design under the column heading called “*Immature Green Materials*”. If any of these crops are interplanted, enter the appropriate “*Interplant Yield Multiplier*” as described in Form 7-1.

The crop data for the following columns may be found in Ecology Action “*Booklet #31 -- Designing A Grow Biointensive Sustainable Mini-Farm*”:

“*Intermediate Yield per Bed per Crop *Mat**”, “*% Dry Matter *Mat**”, “*Intermediate Yield per Bed per Crop *Grn**”, and “*% Dry Matter *Grn**”. These values estimate how much Mature and Immature (Grn) biomass yields can be anticipated from your compost crops.

Exclude From Bed & Bed-Crop Totals: Enter “1” to exclude the crop beds from adding to the “Bed” and “Bed-Crop” compost totals (for this form and for Form 9-2), or enter “0” to include them. For example, you would want to exclude any “60%” carbon/calorie *Income* crop (whose beds were already counted in the Form 8 Income section). Also, you should exclude any “over-wintering” compost crops that are intended to be harvested at the beginning of the primary growing season.

Form 9-2 COMPOST DESIGN (2): The crop data for the following columns may be found in Ecology Action “Booklet #31 -- Designing A Grow Biointensive Sustainable Mini-Farm”: “% C Dry”, “% N Dry”, “% C Grn”, and “% N Grn”. These values estimate how much Carbon and Nitrogen can be anticipated from your compost crops.

Form 9-3 COMPOST DESIGN (3): There is no data to enter on this form. All data is calculated from prior forms.

Form 9-4 COMPOST DESIGN (4): There is no data to enter on this form. All data is calculated from prior forms.


Plan (Primary Growing Season): Please enter data from the Master Charts for your crops.

TP Date: This is your intended Transplant Date for each crop in your *primary* growing season (e.g. spring/summer), which will depend on the frost dates in your specific region.

Plan-XS (Secondary Growing Season): Any crops that you entered with more than one harvest (i.e. “*Crops Per Year*”) on Form 7-1 will be automatically listed on this form. Please enter data from the Master Charts for your crops.

TP Date: This is your intended Transplant Date for each crop in your *secondary* growing season (e.g. fall/winter), which will depend on the frost dates in your specific region.

Schedule (Master Schedule): After entering the required data for all prior forms, please press the “Update

Dates” button  in order to create and/or update your master list of scheduled tasks. Every time that you make changes to prior forms, you should update your scheduled tasks by pressing this button.

Optional: Before printing a paper hardcopy of these tasks, it is recommended that you do a “Print Preview” first so that you can preview how many pages are required to display all of your scheduled tasks. Next, when actually printing this form, you may specify that only the first “x” number of pages be printed. (This helps to conserve paper when printing out this form.)

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