



BCS SAFETY CHECKLIST AND PARTS DIAGRAM

CREATED BY NEW LANDS FARM, MA

Summary

The BCS Safety Checklist and Parts Diagram is a resource designed to be incorporated into a field workshop to train multi-farming and language/literacy farmers how to safely operate and maintain a BCS machine and roto-tiller attachment. This resource should be used by staff as a guide to teach farmers during a workshop, but can also stand alone as a handout or sign after an initial workshop. Staff will use hands-on demonstration to show farmers how to operate machines and attachments.

Who made this guide?

This teaching resource was developed by New Lands Farm and enhanced in collaboration with the Institute for Social and Economic Development (ISED). From 2015-2017, ISED partnered with refugee farmer training programs throughout the country to support the design of new and shareable teaching resources for culturally and linguistically diverse farmers. To access the whole list of newly developed teaching resources for refugee and immigrant farmer training programs, follow this link to the [‘New American Resource Library’](#). For more in-depth explanations of the teaching approaches and activities used in these materials, you can refer to this [Teaching Handbook: Refugee Farmer Training](#)



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Audience (TA or Tot)	TA (Technical Assistance for farmers)
Language and Literacy Level	Any (language and literacy levels will influence which teaching methods you choose to employ and how you will use the actual resource, i.e. handout versus using it to follow as you teach with interpreter.)
Farmer Experience	Beginner to Advance (depending on past experience with machinery)
Pre-Requisites	None
Region or Climate	All
Program Structure	Community farm with individual farmers using shared infrastructure with a range of literacy levels and cultural identities
Season	Beginning of season once soil is workable (spring)
Time	
Staff and Interpreters	One staff, one interpreter (depending on literacy level)
Additional Supplies Needed	A working BCS machine and applicable attachments, tools associated with machine (i.e. ratchet wrench and oil/gas funnel), oil, gasoline, lithium grease, and a demonstration area. At least several copies of this resource should be printed in color and laminated.
Background Material	none

TEACHING MATERIALS INCLUDED

1. BCS Safety Checklist and Parts Diagram
2. BCS Operation and Maintenance Notes (optional, created for staff/trainer)



CORE SKILLS IN THIS LESSON

- Machine part identification
- Machine safety operation
- Reading a diagram
- Following a sequence / instructions

SUGGESTED TEACHING METHODS

Realia

- For example, you will have the actual BCS and attachments with you to physically show to the farmers along with a verbal description/instruction. When you pull out the oil dipstick, you show farmers and say oil dipstick.

Hands-on demonstration

- For example, when teaching farmers how to start the machine, you will act out each step along with verbal guidance until the machine is started. If you are addressing filling the oil, you will do so that they can see exactly how you do so.

Oral drills

- For example, when working farmers through each process, you can identify parts by making sure each farmer can see what you are showing and then asking them to repeat the name of the part. You can also point to important parts, or display certain actions, and have the farmers say out loud what it is.

TEACHING TIPS

Variations

- *Can be connected to:* Farm Safety Trainings, Farm Site Orientations, Soil Preparation and/or Bed Making Workshops.
- *Core skills to add:* If one were to pair this tool with an introduction to crop planning the following core skills could be added: Crop mapping, field map drawing, and succession planting. Or if you are introducing soil conservation, low-tillage could be added as core skill. Because the BCS rototiller soil working tool, it is important to teach farmers which crops benefit from a tilled soil (ie, carrots) versus those that may not need such a prepared bed (ie, potatoes). Also, to teach the damage tillers can have on soil, and therefore, the concept of over tilling. In terms, of succession planting, the BCS can be used to till under past crops and prepare for new ones.

Note to trainers: Please do not rely on this resource alone as a training tool for yourself. You should already be somewhat comfortable with operating a BCS machine. For example, the first time I ran a workshop on how to use a BCS for farmers; I enlisted an outside veteran farmer to do the workshop so that I could learn alongside farmers and help the trainer with language barriers. The following years, I created this resource to use during the workshop and to keep accessible to farmers

in a notebook close to machine. I also provide handouts to those who found them useful. It is also handy for interpreters to have during training.

Setting/backdrop: Staff have the BCS and all need supplies gathered at a central and spacious part of the farm. Staff have pre-read this resource for refresher and possibly added their own personal notes or reminders. In a circle, farmers gather, with of course the appropriate interpreter closest to the appropriate language group. Staff pass out copies of this hand out (color is best if you can afford color printing). In addition, an enlarged and in color copy is present for viewing (this can be displayed for the season close to machine storage area). Staff bring farmers through the document, but stop and do hands-on demonstration and oral drills at each point. Also, famers should be asked to trial steps, for example, have at least a few farmers practice turning on the machine. Once you get through this document, you can move to the field test area and have farmers practice utilizing the BCS and the attachments. For example, actually till a strip of land, including checking oil, tines, bolts, starting and stopping the machine, turning, putting the machine on idle, engaging PTO, etc. Once all the farmers who wish to use the machine in the future have done so, you can then lead them back to where the machines are stored. Show them how to carefully travel with the machine, and what maintenance needs to be one at this point. Altogether, depending on your group, this can easily be a couple of hours.

In large groups, some farmers might kick back and watch from afar, they may even say they don't want to learn about the machine. But more times than none, those same individuals come back to you for help to use the machine. I suggest enforcing that everyone must show you that they know how to operate, including how to start and stop the machine. If not, you end up re-teaching people multiple times during non-designated work shop hours. I made a list of people I signed off as being trained and allowed to use.