

West Sound Bee Association
Beginner Hands-On Class Syllabus (2013)

session 1: **(Entering the Hive)**

Please come on time and prepared:

You will need your veil and hive tool for each class. If you feel more comfortable with a full bee suit and gloves, bring them.

Introductions and sign in:

Check in with the instructor or assistant with the Attendance Sheet.

You should get a student packets. Packets include: A Class list, Class Syllabus (this document) , Hive record sheets, Homework sheets, 2 feathers, bee and honey, and maybe a surprise.

The instructor should ask if there are any urgent questions. Please do not hesitate to ask questions if you have them.

Please let the instructor know if you will not be able to make it all of the sessions, or if you need to leave early, arriving late, etc.

Class Expectations:

The Goal of this class is: This class is intended help beginning beekeepers comfortable with basic hive inspection which includes: Getting prepared, Starting a smoker, opening a hive, inspecting a hive, and recording the inspection. The inspection process will be repeated for each session each having slight variations as the awareness and skill of the student improves. It is expected that the students will be inspecting their own hives outside of class.

Format of the Class...working in pairs, one partner with the hive tool, the other partner with the smoker , record sheet, and recording instrument. Swap roles every 5 or 10 minutes. The partner with the record sheet will direct which frames to inspect. The one with the hive tool will ask for more...or less smoke. (It will be a challenge to work together, and coordinate efforts as you learn together.)

Preview of Today's Session:

Assumption for the day is you have purchased a hive tool, smoker, veil, an unpopulated hive and you are waiting for bees. You either are taking or have taken the beginner class and remember some of the terminology. You may or may not have opened and looked in a real hive.

Announcement: We will not be using brushes or frame holders today even if you brought them.

(confiscate any bee brushes and frame holders- they are not allowed in class)

You are required to wear a veil when opening hives. Gloves, and a bee suit are your option.

Announce Today's special events (Today only – not repeated other session unless needed)

Safety overview; smoker starting demo; No-bee practice Demo/Repeat for smoker use, hive tool use, and hive open and inspect; Record keeping discussion. Review of record sheets.

Announce Today's events to be repeated each session:

(Question time, Discuss homework assignment, Preview the inspection form,(Any session special events) Pair up. Locate assigned hive for the day. Review previous record sheet for the hive. Start the smoker. Inspect the hive with partners.

Safety overview:

First aid kit in the Bee shed contains some band-aids, aspirins, ibuprofen, antihistamines.

If you get stung: Gently put down any frame you are holding. Move away from the hive to prevent

West Sound Bee Association
Beginner Hands-On Class Syllabus (2013)

more stings and remove the sting scent from the hive area. Remove the stinger quickly, Wipe the area with a clean cloth. If the sting is to soft tissue, consider an antihistamine to minimize swelling. Make sure someone knows you have been stung an where. Initial pain only lasts for a couple minutes. If you have any symptoms beyond the pain, local swelling, let someone know.

Procedure if someone has a severe reaction at class: call 911. The address for Stedman Bee Supply is 3763 NW Anderson Hill Rd Silverdale, WA.

Starting smoker:

Do not train your bees to be aggressive. Use a smoker. Keep your hive inspections pleasant for you and your bees. Challenges: lighting it, keeping it lit, producing cool white smoke when needed, putting it out when done.

Smoker Lighting Demo. Students light smokers. Thick white smoke should not burn hand.

Mention: Inspections can be quick or thorough depending on purpose and time available

Mention: Inspect activity at entrance, Space and Resources, Swarm inclination, Goal for the hive

Mention: for multiple box hives, inspect the bottom box first.

Demo smoker use at entrance and on hive: followed by student repeat.

Demo hive tool use by opening the hive and removing some frames- followed by student repeat

Demo frame holding and viewing - followed by student repeat

Demo hive reassembly – followed by student repeat

Discuss recording of results- What needs to be recorded and what doesn't

Review record sheet being used today : We will be using a different record sheet for each session.

Want to expose you to several different ways.

Address hive needs including feeding, retaining heat, maintaining organization

Questions

Reminder: Please do homework assignment number 1 before the next class.

Pair up students for session, assign hives.

Start inspections of hives with live bees.

For this first inspection, focus on the process of inspection and use of the tools. Getting the first frame out is sometimes challenging as is getting all the frames back into the box. Restarting a smoker is common. Filling out the inspection sheet is a good habit to establish. Use the hive tool as a lever, a scraper, a crowbar, a bee swatter, a dull knife, etc. It takes practice to learn how to use it well. Move slowly and gently around the bees.

Session Closeout

The instructor may want to collect one of the hive record sheets to retain with the hive.

Make sure all hives are back together and anything borrowed is back where it belongs.

Don't forget to do your homework.

Last chance for questions for the day.

Homework Assignment 1

Option (a) : Inspect your hive at home following the steps taken in the class.

Option (b): Walk through a practice hive inspection with your empty hive. Attend a package bee install demonstration on package day as they will be very useful.

West Sound Bee Association
Beginner Hands-On Class Syllabus (2013)

Session 2 – **(Find it in the Hive)**

Please come on time and prepared:

You will need your veil and hive tool for each class. If you feel more comfortable with a full bee suit and gloves, bring them. Also, bring back your packet from session 1 and your homework results.

Introductions and sign in:

Check in with the instructor or assistant with the Attendance Sheet.

The instructor should ask if there are any urgent questions. Please do not hesitate to ask questions if you have them.

Please let the instructor know if you will not be able to make it all of the sessions, or if you need to leave early, arriving late, etc.

Announce Today's events to be repeated each session:

(Question time, Discuss homework assignment, Preview the inspection form, Pair up. Locate assigned hive for the day. Review previous record sheet for the hive. Start the smoker. Inspect the hive with partners.

Announce Today's special events:

Discuss use of Capping scratcher for inspections, Discuss feeding, Encourage trial of optional hive tool, Preview the find it in the hive sheet
(Still no frame grips or bee brushes today)

Answer any Burning questions

Discuss homework assignment results

Quick Review of record sheet being used today

Safety reminder:

Quick review of opening hive – It may be useful for the instructor to demo on a live hive.

Pair up students for session, assign hives

Start smokers

Discuss: Use of cappings scratcher for inspections

Mention:Show various hive tools and allow students to try an alternate type of tool.

Optional: Discuss feeders, feeding options, and feeding requirements of hives

Start inspections of hives with live bees.

(students will fill out inspection sheet and find it in the hive sheet.)

The 'Find it in the hive sheet' will focus you on looking for details in the hive. You may need assistance identifying and interpreting what you are seeing. Remember the basic hive tool use, frame holding, and use of smoke from last week. .

Session Closeout

The instructor may want to collect one of the hive record sheets to retain with the hive.

Make sure all hives are back together and anything borrowed is back where it belongs.

Don't forget to do your homework.

Last chance for questions for the day.

Homework Assignment 2

Inspect your hive at home to verify your queen is present and laying. Assess the food needs of your hive. Use a hive inspection sheet or a piece of paper to record your results.

West Sound Bee Association
Beginner Hands-On Class Syllabus (2013)

Session 3 – **(Inspecting with a Purpose)**

Please come on time and prepared:

You will need your veil and hive tool for each class. If you feel more comfortable with a full bee suit and gloves, bring them. Also, bring back your packet and your homework results.

Introductions and sign in:

Check in with the instructor or assistant with the Attendance Sheet.

The instructor should ask if there are any urgent questions. Please do not hesitate to ask questions if you have them.

Please let the instructor know if you will not be able to make it all of the sessions, or if you need to leave early, arriving late, etc.

Announce Todays events:

(Question time, Discuss homework assignment, Preview the inspection form,(Any session special events) Pair up. Locate assigned hive for the day. Review previous record sheet for the hive. Start the smoker. Inspect the hive with partners.

Special item for today: Add food coloring to the feed jars of two hives. At the next session, we will see if the colored feed is visible in the hive or in the bees. This is a learning exercise.

Clearing a frame of bees, 5 minute hive inspection demo

Answer any Burning questions

Questions for students: what will you be looking for in the hive today? What is important?

Discuss homework assignment results

Quick Review of record sheet being used today

Safety reminder:

Quick review of opening hive – It may be useful for the instructor to demo on a live hive.

Pair up students for session, assign hives

Start smokers

5 minute hive inspection demo: Instructor Demo of a 5 minute hive inspection for checking for swarm cells, queen right, food, and space.

Clearing a frame of bees: Instructor Demo of methods to clear bees off of a frame: Blowing, patting, brushing, feathering, jarring, tapping, slamming. Warn of rolling bees with brush. Do not Damage the queen.

Start inspections of hives. (students will fill out inspection sheet and brood check sheet.) You may need to clear frames of bees to read the frame. Do not Damage the Queen. Inspecting with a purpose.

Special Task Add food coloring to two feeders

Session Closeout

Collect 1 record sheet for each hive. (optional)

Make sure all hives are back together.

Remind students of homework.

Answer any last questions.

Homework Assignment 3

Inspect your hive at home. Use your favorite record sheet. Diagram areas of all used frames and what each area is used for. Use the brood check sheet form to Determine the effective egg laying rate of your queen.

West Sound Bee Association
Beginner Hands-On Class Syllabus (2013)

Session 4 – **(Graduation Day)**

Please come on time and prepared:

You will need your veil and hive tool for each class. If you feel more comfortable with a full bee suit and gloves, bring them. Also, bring back your packet and your homework results.

Introductions and sign in:

Check in with the instructor or assistant with the Attendance Sheet.

The instructor should ask if there are any urgent questions. Please do not hesitate to ask questions if you have them.

Please let the instructor know if you have to leave early.

Announce Today's events:

(Question time, Discuss homework assignment, Preview the inspection form,(Group test at the end)

Pair up. Locate assigned hive for the day. Review previous record sheet for the hive. Start the smoker.

Inspect the hive with partners.

Special items today: Check for evidence of the food coloring put into the feed last week. Walk through hands on group test. Fill out class review. Try gloveless beekeeping, Get Diploma of sorts.

Answer any Burning questions

Questions for students: What do you expect to find today? Check color of stores and of bees.

Discuss homework assignment results

Quick Review of record sheet being used today

Short mention of gloveless beekeeping and encourage trying it today. Temperament of hive may be better with gloveless. Allow the bees to fine tune your training.

Safety reminder:

Quick review of opening hive – It may be useful for the instructor to demo on a live hive.

Pair up students for session, assign hives

Start smokers:

Start inspections of hives. (students will fill out inspection sheet) Focus on enjoying the inspection process and watching the bees. If gloveless, make sure you smoke your hands and move hands slowly across hive. As you handle the frames your hands take on the smell of the hive and become invisible to the bees. Try patting the bees with your bare hands.

Session Closeout

Collect 1 record sheet for each hive.

Make sure all hives are back together.

Answer any last questions.

Announcements for more hands-on classes?

Class Closeout:

Walk through the hands on test. The test is to be taken as a group.

Hand out the Class Review Form.

Hand out Completion Certificate when the review form is turned in.

West Sound Bee Association
 Beginner Hands-On Class Syllabus (2013) (Appendix)

Find it in the hive form:

Try to find the following in or around the hive. if you can find and identify the following in the hive:

Catagory					
Hive Stand	none	Low Stand	High Stand	Single hive	Multi hive
Hive parts	Screened bottom	Solid bottom	Deep box	Western Box (super)	Shallow Box (super)
	Outer Cover	Inner cover	Migratory cover	Empty Box	Slatted rack
	Feeder	Frames	Lower entrance	Upper entrance	Hive Staples
Feeders	Entrance Boardman	Miller top feeder	Top Jar Feeder	Frame Feeder	Other
Feed	1:2 sugar syrup	1:1 sugar syrup	2:1 sugar syrup	dry sugar	pollen patty
Frames	Wooden/Plastic frames	Plastic/Wax foundation	Drawn frame	Cull frame	Broken frame
	Burr Comb	Brace Comb	Clean comb	Dirty Comb	Propolis
Open cell contents	mold	Clean and empty	egg	Healthy larva	Unhealthy larva
	pollen	nectar	honey	laying queen	worker sized cells
	Healthy Brood	drone sized cells	honey storage cells	queen cell cup	drawn queen cell
Capped cell Contents	worker larva	worker pupa	Un-emerged worker bee	Emerging worker Bee	Damaged Capping
	Drone larva	Drone pupa	Un-emerged Drone bee	Emerging Drone bee	Un-emerged queen bee
	Health Brood	Unhealthy Brood	pollen	Honey	Sugar Water
Bees	Cluster of Bees	Young worker	Old worker	Young Drone	Mature Drone
	Queen	Queen Retinue			
Hive organization	Brood Area	Pollen Storage	Nectar Storage	Honey Storage	Unused Areas
Location Features	Water Source	Pollen Source	Nectar Source	Propolis Source	Good hive location
	Poor Hive Location	Prepared Beekeeper	Unprepared Beekeeper	Medical kit	Emergency Phone
Other (add)					

West Sound Bee Association
 Beginner Hands-On Class Syllabus (2013) (Appendix)

Brood check sheet form: Count the total of the area covered by eggs, larva, pupa on each frame. Estimate square inches of each total. Note: egg area is the effort of the queen for the last three days. The open larva are the previous 5 days, the capped worker are the previous 13 days. Calculate egg laying rate of the queen. (need to add the translation here)

Frame	Side A Eggs (3 days)	Side B Eggs (3 days)	Side A open larva (8 days)	Side B open larva (8 days)	Side A capped worker (13 days)	Side A capped worker (13 days)	Total Brood Area (21 days)
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Side Total							
Frame Total							
x25							
Divide by Days (3,8, 13, or 21)							
Daily Rate							
<p>Brood per day varies between 0 and 2500 per day through the year. 1000 is typical. 1500 is typical in spring buildup. With multiple queens, expect larger brood production.</p> <p>Note 1: Poor Beekeeper eyesight or a cloudy sky can make spotting eggs and young larva very difficult. In this case, count total brood area only and make some guesses of where the eggs and larva are.</p> <p>Note 2: If the queen has been released in the hive less than 21 days, then this form doesn't fully work.</p>							

West Sound Bee Association
 Beginner Hands-On Class Syllabus (2013) (Appendix)

Class Review and Survey Form Name (optional):

Questions	Please Circle one:		More questions	Please Circle one:
Did the class meet your expectations?	Yes Maybe No		Did you like being paired up to work a hive?	Yes No
Did you enjoy the class?	Yes Maybe No		Did being paired up help or hinder your learning?	Help Hinder
Did you get a lot out of the class?	Yes Maybe No		How was your instructor?	Exceptional Good Marginal Please Replace
Was the stated goal of the Class met?	Yes Maybe No		How were the assistants?	Exceptional Good Marginal Please Replace
Would you recommend the class to others?	Yes Maybe No		Did the class start and finish on time?	Yes Sometimes No
Did four sessions seem to be the right length for the class?	Yes Maybe No		Do the sessions need to be shorter or longer?	Shorter No change Longer
Are you interested in taking more hands-on classes if we have them?	Yes Maybe No		Would you recommend the class to others?	Yes Maybe No
Would you prefer single session classes or multiple session classes?	Single Multiple		Did you get stung in this class?	Yes Yes, but my fault No

Please give us two suggestions for improving this class or for adding more classes: (Content, length of sessions, number of sessions, class size, pairing up on hives, content too much, too little, Homework?, seasonal timing?)

1.

2.

Session 1 Inspection Sheet

West Sound Beekeepers Association

Live Inspection Sheet

Apiary Location

Hive ID

Date and Time

Session 3 Inspection Sheet

Inspection Details

Pollen Gathering?

Nectar Flow?

Weather

Purpose for Inspection

Development Times for Honey Bees (days)

Caste	Egg	Larva	Pupa	Total
Worker	3	5.5	12.5	21
Drone	3	6.3	14.7	24
Queen	3	4.6	8.4	16

Hive Status

Queen Seen

Marked

Eggs

Queen Cells with Egg,
Larva or Pupa?

Removed Queen Cells

Queen Cells Remaining

Emergency

Spotty Drone Brood?

Frames with Brood

Swarm

Worker Brood in All Stages?

Frames of Honey/Nectar

Supersedure

Compact Brood Pattern?

Frames of Pollen

Frames of Foundation

Frames Open Comb

Frames bees occupy in brood chamber

Supers in place

Supers added

Health

Signs of Disease?

Good Temper

Chalkbrood present ?

Nosema Streaking

Signs of Varroa Mite Infestation

Feeding and/or Medication

Actions Taken and Notes

Colony Condition

Weak

Marginal

Strong

HIVE INSPECTION SHEET

Mann Lake Ltd. 800-880-7694

Session 2 Inspection Sheet

Hive ID _____ Yard# _____ Date: _____ Who worked hive: _____

HIVE TEMPERAMENT

- Calm Nervous Aggressive

SAW QUEEN Yes No
 (Marked? Yes No - Color _____)

LAYING PATTERN

- Beautiful (Solid & Uniform)
 Mediocre (Little spotty)
 Poor (Spotty)

EGGS SEEN Yes No

Comments: _____

POPULATION

- Heavy Moderate Low

QUEEN CELLS Yes No

Alone frame bottom: # _____
 Converted worker cell: # _____

DISEASE/PESTS Yes No

- Chalkbrood Nosema Varroa Mites
 Tracheal Mites EFB AFB
 Small Hive Beetle
 Others: _____

MEDICATIONS

Added Date _____
 CheckMite+™ Apistan* Mite Away II™
 Fumagilin-B Mite-A-Thol* Tylan*
 Terramycin™ Terra-Pro
 Others: _____

Removed Date _____

- CheckMite+™ Apistan* Mite Away II™
 Fumagilin-B Mite-A-Thol* Tylan*
 Terramycin™ Terra-Pro
 Others: _____

INTEGRATED PEST MANAGEMENT

- Screened bottom board
 Powdered sugar mite drop
 Drone cell foundation
 Small hive beetle trap
 Others: _____

EARLY SPRING INSPECTION

- Reversed brood box(es) # ___ Deep ___ Med ___ Shallow
 Cleaned Bottom Board

SPRING FEEDING/BUILD-UP

- Bee-Pro*: _____ Dry _____ Wet _____ Patties
 Syrup: _____
 Pollen Sub: _____
 Sugar Syrup (1/1 ratio): _____
 Other: _____

HONEY FLOW PREPARATION

- Added super(s): ___ Deep ___ Med ___ Shallow
 Split hive (new hive# _____) Add inner cover
 Added excluder Requeened Added feeder
 Added pollen trap Fed Hive

HONEY REMOVAL/EXTRACTION

- _____ # Supers removed
 _____ pounds of honey extracted
 _____ pounds comb honey
 _____ pounds of pollen
 Removed excluder

FOOD STORES

	Honey	Pollen
High (Everywhere)	<input type="checkbox"/>	<input type="checkbox"/>
Average	<input type="checkbox"/>	<input type="checkbox"/>
Low	<input type="checkbox"/>	<input type="checkbox"/>
Near brood	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Fed hive		
<input type="checkbox"/> Sugar Syrup (2/1 ratio): _____		
<input type="checkbox"/> Syrup: _____		
<input type="checkbox"/> Bee-Pro*: _____		
<input type="checkbox"/> Other: _____		

HIVE CONDITION

- Normal Brace comb Excessive propolis
 Normal odor Foul odor Equip. Damage
 Replace Equipment-What: _____
 Other: _____

Type of Foundation: Rite-Cell* Plastic Frames
 Duragilt* Wired Medium
 Replace Foundation: Yes No

Notes:



Hive Inspection Report – Seabeck Bee Farm

Session 3 Inspection Sheet

<p>Date/Time: _____</p> <p>Hive: _____</p> <p>Temp: _____</p> <p>Hive Type: _____</p> <p># of boxes: _____</p> <p>Goals for this Inspection:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Inventory honey <input type="checkbox"/> Inventory brood <input type="checkbox"/> Find the queen <input type="checkbox"/> Mark the queen <input type="checkbox"/> Health check <input type="checkbox"/> Treatment <input type="checkbox"/> Add boxes <input type="checkbox"/> Move frames <input type="checkbox"/> Rem. Drone comb <input type="checkbox"/> Harvest Honey <input type="checkbox"/> Pull frames 4 Nuc <input type="checkbox"/> Add short frames <input type="checkbox"/> Test for mites <input type="checkbox"/> Split <input type="checkbox"/> Intro new queen/method: _____ 	<p style="text-align: center;">Verroa</p> <p>Sticky board: # _____</p> <p>Sugar roll: # _____</p> <p>Drone Comb: -----5----- <small style="display: inline-block; width: 30px; text-align: left;">Few</small> <small style="display: inline-block; width: 30px; text-align: right;">A lot</small></p> <p>Treatment:</p> <p>Powdered sugar: Yes No</p> <p>Other: _____</p> <p>Other Pest: Yes No</p> <p>Comments: _____ _____</p>
	<p style="text-align: center;">Feeding</p> <p>Sugar Water: Amount: _____</p> <p>Ratio: 1:1 5:3 2:1</p> <p>Pollen Patty: _____</p> <p>Dry feed: _____</p>
<p style="text-align: center;">Observations</p> <p>Temperament: -----5----- <small style="display: inline-block; width: 30px; text-align: left;">Calm</small> <small style="display: inline-block; width: 30px; text-align: right;">Aggressive</small></p> <p>Traffic: -----5----- <small style="display: inline-block; width: 30px; text-align: left;">Low</small> <small style="display: inline-block; width: 30px; text-align: right;">High</small></p> <p>Bearding: Yes No</p> <p>Laying Pattern: -----5----- <small style="display: inline-block; width: 30px; text-align: left;">Poor</small> <small style="display: inline-block; width: 30px; text-align: right;">Ideal</small></p> <p>Drone Comb: -----5----- <small style="display: inline-block; width: 30px; text-align: left;">Few(25)</small> <small style="display: inline-block; width: 30px; text-align: right;">A lot(100+)</small></p> <p>Queen Cells: <i>Supercedure</i> <i>Swarm</i></p> <p>Population: -----5----- <small style="display: inline-block; width: 30px; text-align: left;">Low</small> <small style="display: inline-block; width: 30px; text-align: right;">High</small></p> <p>Queen Found: Yes No</p> <p>Queen Marked: Yes No</p> <p>Color: _____</p>	<p style="text-align: center;">Harvest</p> <p># Honey: _____</p> <p># Wax: _____</p> <p># Pollen: _____</p> <p># Propolis: _____</p>
	<p style="text-align: center;">Notes/Next Actions</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p style="text-align: right;"></p>

Rev date: Oct. 1 2012

Colony Management Record

Session 4 Inspection Sheet

Colony No./Color

Date Started:

Queen Source:

Today's Date:	Bee Yard:	Need Next:	
Queen Quality: A B C Requeen	Seen: Y / N	Marked: Y / N	Color:
Action: <input type="checkbox"/> Feed: Liquid / Patty / Pollen <input type="checkbox"/>	Feeder: Inside / Top Board / Pollen		
<input type="checkbox"/> Varroa Mite: Powder Sugar / Apiguard: 1 <input type="checkbox"/> / 3 Tracheal	Oth <input type="checkbox"/> _____		
<input type="checkbox"/> Nosema Treatment: Spring: 1 / 2 Fall: 1 / 2 <input type="checkbox"/>	American Foul Brood		
Equipment: Deep ___ Westerns ___ Comb ___ <input type="checkbox"/>	Screened <input type="checkbox"/> Bottom <input type="checkbox"/> QX <input type="checkbox"/> Shins <input type="checkbox"/>		
Status: Strong / Average / Weak	Purpose: Honey / Splits / Training / Queen rearing		
Comments: _____ _____			

Today's Date:	Bee Yard:	Need Next:	
Queen Quality: A B C Requeen	Seen: Y / N	Marked: Y / N	Color:
Action: <input type="checkbox"/> Feed: Liquid / Patty / Pollen <input type="checkbox"/>	Feeder: Inside / Top Board / Pollen		
<input type="checkbox"/> Varroa Mite: Powder Sugar / Apiguard: 1 <input type="checkbox"/> / 3 Tracheal	Oth <input type="checkbox"/> _____		
<input type="checkbox"/> Nosema Treatment: Spring: 1 / 2 Fall: 1 / 2 <input type="checkbox"/>	American Foul Brood		
Equipment: Deep ___ Westerns ___ Comb ___ <input type="checkbox"/>	Screened <input type="checkbox"/> Bottom <input type="checkbox"/> QX <input type="checkbox"/> Shins <input type="checkbox"/>		
Status: Strong / Average / Weak	Purpose: Honey / Splits / Training / Queen rearing		
Comments: _____ _____			