

# Biochar Business Survey

## Welcome to the IBI Survey of Biochar Businesses

---

### Page description:

### Welcome to the IBI Survey of Biochar Businesses

The International Biochar Initiative (IBI) is conducting this survey to collect data on activities related to the **commercial production, distribution and marketing of biochar and biochar-related products and services**. In recent years, there has been strong growth in biochar enterprise but little documentation of trends in markets, technologies and other aspects of business operations. IBI will be using the data collected in this survey to highlight the worldwide breadth of biochar commercial activity—to look at trends in geography, feedstocks, technology, financing, and utilization.

The survey is directed towards three biochar business entities: **1) biochar production and/or sales; 2) biochar production equipment manufacturers; and 3) other biochar-related enterprises**. You will be directed to the appropriate survey questions based on your corresponding role in the biochar sector.

**NOTE:** IBI recognizes that biochar enterprises need to protect their intellectual property as part of their business models and to maintain their competitive edge. **To this end, IBI will not share any information on any individual business or on any individual questions (other than basic business information such as website and location) collected in this survey.** Only data that is aggregated to show overall trends in the biochar industry will be shared. If you have any concerns prior to completing a survey please contact us at [info@biochar-international.org](mailto:info@biochar-international.org).

This survey contains up to 25 multiple-choice questions (depending on your business type) and should take about 20 minutes to complete. **The deadline for input is September 6, 2013.**

**Instructions:** Please do not hit "enter" while filling out the survey as it may interrupt the survey. Rather, use the "tab" button or your mouse to move to each subsequent question and response, and then hit the "Next" button to navigate to the next page of the survey. Make sure that you click "Submit" when you have completed the survey in full.

## CONTACT INFORMATION & BUSINESS AREA

---

**Page description:**

In this section we request contact information and ask about the area of your biochar enterprise —based on your response you will be directed to the appropriate survey questions.

**Note that items marked with an \* indicate required fields.**

1. Please fill in your contact information.

First Name \*

Last Name \*

Title

Business Name \*

Street Address

City/District/Village \*

State/Province/Region \*

Postal Code

Country \*

Email Address \*

Website URL

2. Please fill in your contact information.

First Name \*

Last Name \*

Title

Business Name \*

Street Address

City/District/Village \*

State/Province/Region \*

Postal Code

Country \*

Email Address \*

Website URL

3. In which of the following sectors does your business operate? *Please check all that apply.* \*

- Biochar production and/or sales
- Biochar production equipment manufacturer
- Other biochar-related enterprise

**BIOCHAR PRODUCTION AND/OR SALES**

---

**Page description:**

In what year was your business founded? \*

4. What is/are the primary product/service(s) your business offers? Check all that apply. \*

biochar

compost

charcoal for fuel

horticulture

tree care

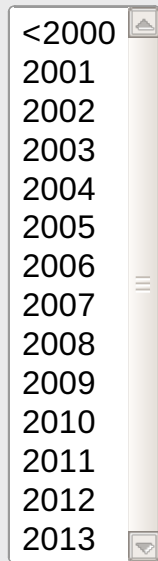
environmental restoration

other: please describe

5. How many full-time staff does your business employ? \*

6. How many part-time staff does your business employ? \*

7. In what year did your business begin offering biochar for sale?



A vertical dropdown menu with a scroll bar. The options are: <2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013.

8. What percentage of your employees is involved in the biochar-related aspects of your business? \*

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

9. Do you operate the biochar production equipment, or contract production to a third party? \*

- operate internally
- contract to 3rd party

10. What feedstocks are used to produce your biochar? Please check all that apply. \*

- Woody biomass – softwoods (conifers, monocots)
- Rice hulls or straw
- Cereal (non-maize) straws
- Sugar cane bagasse or trash
- Coconut coir, hulls or shells
- Bamboo
- Woody biomass – hardwoods
- Maize (corn) cobs or stover
- Animal manure
- Food waste
- Biosolids (sewage sludge)
- Other plant residue: please list
- Other animal residue: please list

Do you offer a pure biochar and/or a blended product? Check all that apply. \*

- pure
- blend
- both

11. If you offer a blend, what ingredients are added? \*

compost/compost tea

kelp meal/seaweed

sawdust/wood dust

peat

clay/other minerals

mycorrhizal fungi

soil micro-organisms

other: please list

N/A

12. Please provide your product brand name, if applicable?

13. Are you currently selling biochar or biochar products? \*

yes

no

14. If you are selling biochar, do you plan on testing your biochar to the *IBI Biochar Standards*?

\*

yes

no

15. Do you plan to apply for *IBI Biochar Certification* (for more information, please see: <http://www.biochar-international.org/certification>)? \*

yes

no

Do you sell biochar through retail and/or wholesale outlets? Check all that apply. \*

retail

wholesale

both retail and wholesale

N/A

16. For your primary product, what is the price in US Dollars per Unit offered?

US Dollars



Unit

- pound
- kilogram
- short ton (2000 lbs)
- metric tonne (1000 kg)
- quart
- gallon
- cubic foot
- cubic yard
- cubic meter
- other: please list

17. What is the approximate volume of biochar sales in units in the past 12 months?  
*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

Units sold in last 12 months

18. For your biochar-related business, what is the approximate increase (or decrease) in revenue you have experienced in the last 12 months as compared to the previous 12 months?

*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

- < -50%
- 50 to -25%
- 25 to 0%
- 0 to 25%
- 25 to 50%
- 50 to 75%
- 75 to 100%
- > 100%

19. What are your approximate annual gross revenues for the biochar-related aspects of your business in US Dollars?

*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

US Dollars

20. What are the approximate operating expenses for the biochar-related aspects of your business in US Dollars? e.g., wages, equipment, feedstock procurement, marketing, distribution, etc.

*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

US Dollars

21. How have you financed the start-up expenses of the biochar-related aspects of your business? \*

- business loan from traditional financial institution e.g., bank
- investment from angel investor or venture capital firm
- personal capital
- loan from family/friends
- grant from private or public source
- other: please describe
- N/A

22. Please rank your agreement with the following statement.

*Sales of my biochar-related product will increase in the next 12 months.* \*

Strongly  
disagree

Disagree

Neutral

Agree

Strongly agree

23. What barriers do you see to the expansion of your business?

- regulatory
- technological
- financing/access to credit
- lack of market awareness of biochar benefits
- lack of access to carbon offset markets
- other: please list

24. Please provide any additional comments here. In particular, please comment on how IBI could help your business grow.

## **BIOCHAR PRODUCTION EQUIPMENT MANUFACTURER**

---

### **Page description:**

In this section we ask you specific information about your business manufacturing and/or selling biochar production equipment including size and scope of the business, types of technologies you offer for sale, volume of transactions, and business outlook. NOTE: IBI will not share any information on any individual business or on any individual questions (other than basic business information such as website and location) collected in this survey. Only data that is aggregated to show overall trends in the biochar industry will be shared.

25. In what year was your business founded? \*

26. What is the primary product/service your business offers?

- cookstoves
- biochar production technology – small-scale e.g., household
- biochar production technology – mid- to large-scale e.g., farm or industrial operation
- energy production technology – small-scale e.g., household
- energy production technology – mid-scale e.g., farm
- energy production technology – large-scale e.g., industrial operation
- other: please describe

27. How many full-time staff does your business employ? \*

28. How many part-time staff does your business employ? \*

29. In what year did your business begin offering biochar production equipment for sale?

<2000  
2001  
2002  
2003  
2004  
2005  
2006  
2007  
2008  
2009  
2010  
2011  
2012  
2013

30. What percentage of your employees is involved in the biochar-related aspects of your business? \*

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

31. What type of biochar production equipment does your business manufacture? \*

- Batch retort pyrolysis kiln
- Continuous pyrolysis kiln
- Cook stove – top-lit updraft gasifier (TLUD)
- Cook stove – Anila, or annular retort design
- Small gasifier, including TLUD units not used as cook stoves such as ovens
- Larger gasifier
- Traditional pit, mound, or brick kiln
- Other: Please describe

32. Is your biochar production equipment a batch process or a continuous process? \*

- Batch
- Continuous

If your biochar production equipment uses a batch process, what is the capacity?  
*Approximately how many kilograms (1 kg = 2.2 pounds) of biomass feedstock are processed per batch?*

kgs/batch

If your biochar production equipment uses a batch process, how many batches can be processed per day?

- 1
- 2
- 3 or more

If your biochar production equipment uses a continuous process, what is the capacity?  
*Approximately how many kilograms of biomass feedstock are processed per hour?*

kgs/hour

33. At what percent of your production capacity is your equipment operating?

0 to 25%  
25 to 50%  
50 to 75%  
75 to 100%  
N/A

34. If your equipment has the capacity to capture energy from the pyrolysis/gasification process, how can it be utilized?

*Check all that apply.*

- Cooking
- Drying food, fuel, feedstock or crops
- Space heating
- Combined heat and power (CHP)
- Electricity generation - internal combustion engine
- Electricity generation - thermo-electric generator
- Syngas collection, cleanup and storage
- Bio-oil collection and refining
- Other: Please describe

35. Are you currently selling biochar production equipment? \*

- yes
- no

36. What is the approximate sale price for a unit of your equipment in US Dollars?

US Dollars per Unit

37. How many units have you sold in the last 12 months?

Units



38. How have you financed the start-up expenses of the biochar-related aspects of your business? \*

- business loan from traditional financial institution e.g., bank
- investment from angel investor or venture capital firm
- personal capital
- loan from family/friends
- grant from private or public source
- other: please describe
- N/A

39. For your biochar-related business, what is the approximate increase (or decrease) in revenue you have experienced in the last 12 months as compared to the previous 12 months?

*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

- < -50%
- 50 to -25%
- 25 to 0%
- 0 to 25%
- 25 to 50%
- 50 to 75%
- 75 to 100%
- > 100%

40. What are your approximate annual gross revenues for the biochar-related aspects of your business in US Dollars?

*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

US Dollars

41. What are the approximate operating expenses for the biochar-related aspects of your business in US Dollars? e.g., wages, equipment, feedstock procurement, marketing, distribution, etc.

*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

US Dollars

42. Please rank your agreement with the following statement.

*Sales of my biochar-related product will increase in the next 12 months. \**

Strongly  
disagree

Disagree

Neutral

Agree

Strongly agree

43. What barriers do you see to the expansion of your business?

- regulatory
- technological
- financing/access to credit
- lack of market awareness of biochar benefits
- lack of access to carbon offset markets

other: please list

44. Please provide any additional comments here. In particular, please comment on how IBI could help your business grow.

## **OTHER BIOCHAR-RELATED ENTERPRISE**

---

### **Page description:**

In this section we ask you specific information about your business offering products and/or services related to the biochar industry including size and scope of the business, products and/or services you offer, volume of transactions, and business outlook.

NOTE: IBI will not share any information on any individual business or on any individual questions (other than basic business information such as website and location) collected in this survey. Only data that is aggregated to show overall trends in the biochar industry will be shared.

45. In what year was your business founded? \*

46. What is the primary product/service your business offers?

- cookstoves
- consulting – sustainable agriculture/rural development
- consulting – engineering
- consulting – bioenergy
- accessory equipment (dryers, processors, etc.)
- materials testing (soil laboratory, etc.)
- other: please describe

47. How many full-time staff does your business employ? \*

48. How many part-time staff does your business employ? \*

49. In what year did your business begin offering products or services related to biochar for sale?

<2000  
2001  
2002  
2003  
2004  
2005  
2006  
2007  
2008  
2009  
2010  
2011  
2012  
2013

50. What percentage of your employees is involved in the biochar-related aspects of your business? \*

- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

51. What product or service do you offer in the biochar space?

- consulting – biochar project design
- consulting – engineering
- consulting – marketing
- consulting – legal
- laboratory analytical testing
- accessory equipment (dryers, processors, etc.)
- others

52. How much have sales from products/services you offer in the biochar industry increased your revenues in the past 12 months? \*

*[Note: all financial information will be kept strictly confidential and only shared in aggregated form.]*

- 0 to 25%
- 25 to 50%
- 50 to 75%
- 75 to 100%
- > 100%

53. Please rank your agreement with the following statement.

*Sales of my biochar-related product will increase in the next 12 months. \**

Strongly  
disagree

Disagree

Neutral

Agree

Strongly agree

54. What barriers do you see to the expansion of your business?

- regulatory
- technological
- financing/access to credit
- lack of market awareness of biochar benefits
- lack of access to carbon offset markets
- other: please list

55. Please provide any additional comments here. In particular, please comment on how IBI could help your business grow.

**Thank You!**

---

**IBI THANKS YOU FOR YOUR TIME!**

**WE WILL COMPILE AND ANALYZE SURVEY RESULTS AND SHARE THEM WITH YOU, IBI'S MEMBERSHIP AND THE GLOBAL BIOCHAR COMMUNITY.**