Diversifying with Chestnuts & Asian Pears

(Apple Alternatives)

Tom Wahl
Red Fern Farm
Asian Pear vs. Apples

- Same soils/sites
- Same tools
- Easier to grow
- 1 – 2 spays/year for perfect fruit
Asian Pear

Neglected Asian pear

- Fraction of pruning
- Fruit thinning needed
- Plant blight resistant varieties
Profitable

- $1.50 - $8.00/fruit
- Popular you-pick

Photo courtesy of Practical Farmers of Iowa
Why grow chestnuts?

- Thrive
- Easier to market
- More profit
Lower Production $

- Low or no spray
- Little pruning
- No ladders
- Easy harvest
- PYO friendly
World Wide Favorite Nut

- #3 nut in world
- #3 food crop in China
High-Value Crop

- 10x more profitable/acre than other nut crops
Growing Chestnuts in Iowa
Suitable Site?

- Well Drained soil
- pH of 6.5 or lower

Google: Web Soil Survey
Develop a Plan

- Site Map
- Spacing
- Weed Control
- Ground Cover
- Protection
- Sources
- Bare root or potted?

Name of farmer: Augustine Achenfour
Farm location: Gyenin
Age of farm: 20 years
Farm size: 5 acres
Tree diversification plot: 1 acre

For farmer: __________________ Date: ____________
For forest officer: ______________ Date: ____________

Gyenin River
Down slope

R.P. Base line
Planting direction

© Ed How to Write a Business Plan for Farming and Raising Livestock
Site Map Includes:

- Boundaries
- Features
- Drainages
- Roads/lanes
- Location of each tree
### Spacing

- **20ft x 20ft**
- Thin to **40 x 40** by 20 years
- Then to **80 x 80**
- **160 x 160** about year 500

### Three Chestnut Planting Plan Stages

#### Stage 1: The Tree Planted Spacing

<table>
<thead>
<tr>
<th>P</th>
<th>-20' - s - 20' - P</th>
<th>s</th>
<th>P</th>
<th>s</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>20'</td>
<td>s</td>
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<td>S</td>
</tr>
<tr>
<td>20'</td>
<td>P</td>
<td>s</td>
<td>P</td>
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</tbody>
</table>

#### Stage 2: The First Tree Thinning

<table>
<thead>
<tr>
<th>P</th>
<th>----- 40' -----</th>
<th>P</th>
<th>P</th>
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</thead>
<tbody>
<tr>
<td>40'</td>
<td>s</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>28'</td>
<td>P</td>
<td>P</td>
<td></td>
</tr>
</tbody>
</table>

#### Stage 3: Final Orchard Spacing

<table>
<thead>
<tr>
<th>P</th>
<th>----- 40' -----</th>
<th>P</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>40'</td>
<td>P</td>
<td>P</td>
<td>P</td>
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</table>

<table>
<thead>
<tr>
<th>I</th>
<th>P</th>
<th>P</th>
<th>P</th>
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</thead>
</table>
Planting

Container trees

Bare root trees
Weed Control, 2 Choices:

- 3 x 3 foot mat & wood chips
- Suflometuron Methyl herbicide

Or
Tree Shelter

- 5 foot Tall
- Vented
- Plantra
Mowing

- Frequent in beginning
- Fast, light mower
Ground Cover

- Durable
- Shade tolerant
- Compatible with trees
Genetics

- Chinese or hybrids best for Iowa
- Match local climate

Pink: Chinese-American Hybrids

Blue: Chinese Chestnut
Nursery Stock

- Avoid glossy catalogs Nurseries
- Avoid spiraling roots in round pots
Marketing

Best customers

China → Nepal → Germany → & Iowa
Marketing

Worst customers

American-born Anglos
People Travel for Chestnuts
Marketing options:

- Farmers markets
- On-Farm stands
- Internet Sales
Marketing options:

- Grocers
- Health Food Stores
Marketing options:

- Cooperatives
- Wholesalers
You Pick: Most profitable

Our costs:
- Mowing
- Nut wizards
- Buckets & Totes
- Amenities
Keep details on customers

<table>
<thead>
<tr>
<th>Date Added</th>
<th>Ranking</th>
<th>Name</th>
<th>Phone</th>
<th>mail or 2nd phon</th>
<th>Chestnut</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/10/2010</td>
<td>1</td>
<td>Huse Pandzic</td>
<td>314/698-6805</td>
<td></td>
<td></td>
<td>x off U-pick permanent list now in St. Louis, Drop from list?</td>
</tr>
</tbody>
</table>
| 10/10/2010 | 2       | Izet Osmankic     | 319/427-0103  | 319/830-3766     |          | x face book, old customer came with Ibro and Kasim on 9/20/15, called 7/5/15 to check on chest 
| 10/10/2010 | 3       | Fadika Dogic      | 319/883-9105  |                  |          | camped two days, collected 500#, 2013          |
| 9/19/2013  | 4       | Fikret            | 319/236-3518  |                  |          | x off U-pick permanent list Drop?, # no longer in service |
| 10/2/2013  | 5       | Zinka (and Alan)  | 319/236-2207  |                  |          | x scheduled for 10/3/15 but decided to cancel, needed 100#, only 50# available |
| 10/10/2013 | 6       | Imran             | 319/230-0000  |                  |          | x off U-pick permanent list Drop?, # no longer in service |
| 10/10/2013 | 7       | Mirsada Cajic     | 319/230-4748  |                  |          | x trying to get off on Wed., Sept. 23, 2015 |
| 10/10/2013 | 8       | Hajara (Hira)     | 319/232-2841  |                  |          | x off U-pick permanent list                   |
| 10/10/2013 | 9       | Refik             | 319/280-1920  |                  |          | x off U-pick permanent list                   |
| 10/10/2013 | 10      | Enis              | 319/290-9981  |                  |          | x off U-pick permanent list called 8/11/15 to check on things |
| 10/10/2013 | 11      | Dzevad            | 319/427-0354  |                  |          | x gathered 10/12/13, Sept. 2015 line constantly busy |
| 10/10/2013 | 12      | Oz                | 319/427-3394  |                  |          | x off U-pick permanent list                   |
| 10/10/2013 | 13      | Suad              | 319/433-8701  |                  |          | x off U-pick permanent list                   |
| 10/10/2013 | 14      | Zijad             | 319/504-3016  |                  |          | x off U-pick permanent list                   |
| 10/10/2013 | 15      | Natasha           | 319/504-4020  |                  |          | x off U-pick permanent list                   |
| 10/10/2013 | 16      | Irmin (cell #)    | 319/554-2355  |                  |          | x off U-pick permanent list, Coll ph "Non-working #" |
| 10/10/2013 | 17      | Safet Ibticic     | 319/610-1370  |                  |          | x off U-pick permanent list "Too busy"        |
| 10/10/2013 | 18      | Sefik             | 319/610-3117  |                  |          | x off U-pick permanent list refer to Conner Dolan |
| 10/10/2013 | 19      | Zemir             | 319/830-3786  |                  |          | x gathered 10/5/13                           |
| 10/10/2013 | 20      | Arnela            | 319/830-5755  |                  |          | x off U-pick permanent list                   |
### Make a schedule

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Sat 9/19 Aesuk Subdert</td>
<td>319/329-7103</td>
<td>got 40#</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Sun 9/20 Enis+ family (2-4)</td>
<td>319-290-9961</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Sun 9/20 Hajra</td>
<td>319-233-2941</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Mon 9/21 Denis Bevic</td>
<td>319/290-6801</td>
<td>want 10 pounds or less</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Wed 9/23 Mirsia</td>
<td>319/939-0730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Thu 9/24 &quot;IB&quot; Ibrahisa Pasic</td>
<td>319/290-1929</td>
<td>1:00 - 2:00 leaving waterloo around noon, 2 - 4 adults, want 400 - 500 lbs</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Fri 9/25 Royce</td>
<td>515/200-6030</td>
<td>wants 2-3 pounds</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Fri 9/25 Refik</td>
<td>319-290-1920</td>
<td>call ahead with report, coming from Sioux City, wants 200-300 lbs</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Fri 9/25 Mustafa</td>
<td>319-883-9802</td>
<td>daughter called to cancel at 3:15 that day</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Sat 9/26 Izet Osmankic+Party</td>
<td>319/427-0103</td>
<td>gathered 478.25 pounds, Large party, will take all fields that day</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Sat 9/26 Chad Gelner</td>
<td>507/951-5183</td>
<td>9 - 10 am. only a couple pounds</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Sun 9/27 Fatina Zelic</td>
<td>515-339-2616</td>
<td>NOT on Waiting list!&lt; Did not show, no call either, 20-30lbs needed, M</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Sun 9/27 Semso Beganovic</td>
<td>319/230-3725</td>
<td>drove up liked pawpaws too</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Sun 9/27 Zijad</td>
<td>319-504-3016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Sun 9/27 Suad</td>
<td>319-433-8701</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Mon 9/28 Xin</td>
<td>847/890-3815</td>
<td>Decided not to come, &quot;forgot to call to say so&quot; 30# or more, wants to be</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Mon 9/28 Munir</td>
<td>319-493-0266</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Tue 9/29 Vahida</td>
<td>319-240-7687</td>
<td>got 113 pounds, 3 adults</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Tue 9/29 Emir</td>
<td>319-236-2636</td>
<td>got 87.25 pounds</td>
<td></td>
</tr>
</tbody>
</table>
Show:

- Area to harvest
- Equipment
Provide Amenities

- Latrine
- Trash cans
- Hand washing water
- Picnic table
- Cooler of ice water on Hot days
Afterward, We weigh and bag
Everyone is Happy
Pawpaw

- Iowa Native
- Understory tree
Pawpaw

- Virtually pest free
- No Spray
- No Pruning
Popular for You Pick

- Tropical flavors
- Easy to Harvest
- Delicious
Can double revenue

- Plant under chestnuts
- Plant under Apples

Photo courtesy of Practical Farmers of Iowa
Questions?
Helpful Organizations and Links:

- Chestnut Primer available online for free from www.redfernfarm.com,
- Chestnut Growers of America www.wcga.net
- The Paw Paw Foundation
- Iowa Nut Growers Association
- Northern Nut Growers Association www.nutgrowing.org
- Nebraska Nut Growers Association
- North American Fruit Explorers www.nafex.org
- Badgersett Research Farm www.badgersett.com
- University of Missouri Center for Agroforestry www.centerforagroforestry.org
- National Agroforestry Center www.unl.edu/nac/
- ATTRA www.attra.ncat.org
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