

This traditional cider will be a sure crowd pleaser. It can be given even more personality by some further embellishments. This formula will make about 10 gallons of finished cider. Juice concentrates need to be stored refrigerated until used.

• Ingredients

- Tree Top Apple Juice Concentrate
- Water (Filtered is recommended)
- Diammonium Phosphate
- Yeast Energizer
- Champagne yeast (we've used EC-118 and Red Star Premier Cuvee)
- 10% sulfite solution (78 g sodium metabisulfite in 500 mL water, shelf life = 3 months)
- Tree Top Finishing-Style Apple Juice Concentrate

1. Clean and sanitize all of the equipment you will be using.
2. Measure out 1.1 gallons (12.4 lbs) of Tree Top Apple Juice Concentrate.
3. Add 3.9 gallons (32.4 lbs) of water. Mix until blended thoroughly. The juice will now be 19.0° Brix.
4. Add 8.8 mL of the sulfite solution. This will give approximately 50 ppm sulfite. This inhibits spoilage organisms.
5. After 12 hours, rehydrate yeast according to directions on packet and pitch.
6. For the yeast nutrients, add 2.25 g yeast energizer and 2.25 g diammonium phosphate 12 hours after pitching yeast. Dissolve in small amount of fermenting must before adding to batch. You could also dissolve in a little bit of preservative-free apple juice.
7. After 3 days, add another 2.25 g yeast energizer and 2.25 g diammonium phosphate. Dissolve in small amount of fermenting must before adding to batch. You could also dissolve in a little bit of preservative-free apple juice.
8. Try to keep fermentation temperature between 15-20°C. Fermentation will continue for 7-21 days. Continue to monitor gravity until it stabilizes. This will ensure a complete fermentation.
9. Be sure to rack off of lees after fermentation has ended. Add 4.4 mL of the sulfite solution during racking. Minimize splashing and introduction of air into the cider from this point forward to help protect all the hard work you've done.
10. At this point, the cider should be relatively stable as long as you minimize air contact and store below 15°C. Clarifying agents can be utilized if desired. (The estimated ABV will be 10.4%)
11. To make the final blend, add 4.58 gallons (38.1 lbs) of water and 0.5 gallons (5.6 lbs) of Tree Top Finishing-Style Apple Juice Concentrate to the 5 gallons of fermented base. Add another 4.4 mL of sulfite solution. (The estimated ABV will be 5.2% and have a 2-3% residual sugar)
12. There will still be some yeast that will ferment the added juice concentrate (and over carbonate or blow up bottles) unless these steps are taken. Be sure to either pasteurize or add 10 g potassium sorbate to stabilize your cider. The potassium sorbate should be dissolved in a small amount of water before addition.

Embellishments

There are many routes to personalize this cider and we recommend that you try them on a small scale first (500 mL or less) before committing to larger batches. You can add more Finishing-Style Apple Juice Concentrate to make a sweeter product. Apple essence can be added to give more apple character. Additional flavors or fruit juices can be added to change the flavor profile. Many cider makers are experimenting with dry hopping or even cooking a small portion of the juice (pre-fermentation) to bring out some of the hop bitterness. Other sweeteners can be added for sweetness and flavor (molasses, maple syrup, etc.). Acidity can be increased by the addition of malic acid. Different yeasts can be used for fermentation, but the gravity may need diluted to accommodate their preferred range.

Yeast assimilable nitrogen (YAN) levels

- Tree Top's Apple Juice Concentrate YAN levels: As estimated by formol titration is 185-229 mg N/KG of concentrate, average 210 mg N/KG.
- To convert to a juice made for fermenting, multiply 210 * (finished brix)/ 70 (concentrate brix), to get mg N/kg of juice. Example: 12 brix juice - 210 *12/70, or 36 mg N/kg of juice.

All apple juice concentrate has a relatively low YAN value, therefore we recommend adding diammonium phosphate, as noted above in step 7.

For a complete list of all of our fruits, in all of their forms and endless possibilities, visit treetoppingredients.com
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More fruits, more forms, more possibilities.™

This traditional cider will be a sure crowd pleaser. It can be given even more personality by some further embellishments. This formula will make about 45 gallons of finished cider. Juice concentrates need to be stored refrigerated until used.

• Ingredients

- Tree Top Apple Juice Concentrate
- Water (Filtered is recommended)
- Diammonium Phosphate
- Yeast Energizer
- Champagne yeast (we've used EC-118 and Red Star Premier Cuvee)
- 10% sulfite solution (78 g sodium metabisulfite in 500 mL water, shelf life = 3 months)
- Tree Top Finishing-Style Apple Juice Concentrate

1. Clean and sanitize all of the equipment you will be using.
2. Measure out 5 gallons (56.2 lbs) of Tree Top Apple Juice Concentrate.
3. Add 17.7 gallons (147.3 lbs) of water. Mix until blended thoroughly. The juice will now be 19.0° Brix.
4. Add 40 mL of the sulfite solution. This will give approximately 50 ppm sulfite. This inhibits spoilage organisms.
5. After 12 hours, rehydrate yeast according to directions on packet and pitch.
6. For the yeast nutrients, add 10.23 g yeast energizer and 10.23 g diammonium phosphate 12 hours after pitching yeast. Dissolve in small amount of fermenting must before adding to batch. You could also dissolve in a little bit of preservative-free apple juice.
7. After 3 days, add another 10.23 g yeast energizer and 10.23 g diammonium phosphate. Dissolve in small amount of fermenting must before adding to batch. You could also dissolve in a little bit of preservative-free apple juice.
8. Try to keep fermentation temperature between 15-20°C. Fermentation will continue for 7-21 days. Continue to monitor gravity until it stabilizes. This will ensure a complete fermentation.
9. Be sure to rack off of lees after fermentation has ended. Add 20 mL of the sulfite solution during racking. Minimize splashing and introduction of air into the cider from this point forward to help protect all the hard work you've done.
10. At this point, the cider should be relatively stable as long as you minimize air contact and store below 15°C. Clarifying agents can be utilized if desired. (The estimated ABV will be 10.4%)
11. To make the final blend, add 20.8 gallons (173.1 lbs) of water and 2.3 gallons (25.8 lbs) of Tree Top Finishing-Style Apple Juice Concentrate to the 22.7 gallons of fermented base. Add another 20 mL of sulfite solution. (The estimated ABV will be 5.2% and have a 2-3% residual sugar)
12. There will still be some yeast that will ferment the added juice concentrate (and over carbonate or blow up bottles) unless these steps are taken. Be sure to either pasteurize or add 45.5 g potassium sorbate to stabilize your cider. The potassium sorbate should be dissolved in a small amount of water before addition.

Embellishments

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All apple juice concentrate has a relatively low YAN value, therefore we recommend adding diammonium phosphate, as noted above in step 7.

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