



## This & That

Posted by [Mason Colby](#)

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[Mason Colby](#)

[This & That](#)

March 21, 2022 12:03PM

Registered: 1 year ago

Posts: 18

Is every rootstock from seed different and unique just like every apple is?

Also if you take two parents of an apple and cross them do you always get the same result? If you cross Macoun and Honeygold 100 times would you always get Honeycrisp? Or is it like when two people have children and each child is different and unique.

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[Claude Jolicoeur](#)

[Re: This & That](#)

March 21, 2022 05:20PM

Registered: 11 years ago

Posts: 226

Mason Colby Wrote:

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> Or is it like when two  
> people have children and each child is different  
> and unique.

Yes, this is what it is. Each seedling tree is unique.

However, some varieties/species do have seedlings that are quite similar (although still unique) and retain the characters of the species - like Antonovka seedlings.

[Jolicoeur Orchard](#)

Zone 4 in Quebec

Author, [The New Cider Maker's Handbook](#)

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[Mason Colby](#)

[Re: This & That](#)

March 22, 2022 01:40AM

Registered: 1 year ago

Posts: 18

I know how every pip is unique but even if they have the same parents? They cross apples in labs to create new varieties right? So do they think "these 2 apples have good potential for giving desirable offspring so let's create 100 and see if any are good."?

Thanks for the reply

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[David Maxwell](#)

[Re: This & That](#)

March 22, 2022 02:53AM

Registered: 11 years ago

Posts: 197

The apple genome has 50,000 genes. (The human genome has only 30,000). Crossing any two parents, these genes will assort differently each and every time. And, yes, that is exactly what breeders do: make thousands of crosses, (I have seen figures as high as 10,000 needed to select a desirable cross), and then grow them out and find new desirable fruit. (Takes many years!) There is a scientist in our local research station who is attempting to identify the genes in parents responsible for specific characteristics, then screen the progeny of crosses to make sure these particular genes are present in the offspring, hopefully avoiding having to wait until the trees have grown to pick out likely good ones. (And, no, I am not a fan of his work, particularly since he has recently swerved into active genetic manipulation.)

The alternative is to let nature make the thousands of crosses needed, and just pick out the ones which are desirable to humans. (Any apple with "Pippin" (eg. Cox's Orange Pippin) or "Seedling", (Bramley's Seedling), were just such random crosses. So was the venerable McIntosh, which arose on the farm of Alexander McIntosh in Dunedden, Ontario back in the 1800's. He mowed it down 4 times, sprouting anew each time, at which point he is purported to have said, "Well if thee will live, let thee live".

[Broomholm Orchard](#)

Zone 5b in Nova Scotia

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[Mason Colby](#)

[Re: This & That](#)

March 22, 2022 05:23PM

I didn't know he mowed it down 4 times

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Registered: 1 year ago

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