# THEORY: WHY POTATO ONIONS SELDOM GO TO SEED Proposed by Kelly Winterton 12-03-2010

## **Potato Onions in History**

The history of Potato Onions is probably lost. I propose that, like many other vegetables we currently enjoy in our cuisine, their origin was some wild ancestor many thousands of years ago. The Potato Onion was probably adapted and bred over many generations, evolving from this wild ancestor into what we now have. After some diligent Internet searching failed to reveal any alternative theories or scenarios, I believe the whys and hows and when are probably unknown. We owe much gratitude to our human ancestors of centuries past for improving and developing all of the cultivated foods we now enjoy from their less-desirable wild forms.

### The Comparison of Chickens to Potato Onions

For many years I have had a backyard flock of chickens. Much to my disappointment, I discovered that a modern hen does not possess the instinct or ability to sit on and hatch her own eggs. If more chickens are to be hatched, humans must intervene and incubate the eggs in an incubator.

(My flock of Bantam chickens does a great job of sitting on and hatching their own eggs.)

But a century ago, a hen could still hatch her own chicks. How did this trait suddenly vanish? The answer is actually quite simple.

The old farmer simply noticed that some hens would lay more eggs than others, so of course the offspring of the best layers was perpetuated. If a hen stopped laying eggs because she went broody and started to sit instead of lay, then that hen laid fewer eggs per season than the hen that didn't go broody. Over multiple generations, farmers selected for hens that laid the most eggs per year and thus the broodiness of hens was also diminished.

I suggest this is what happened to Potato Onions in centuries past.

#### My Proposed Theory

I theorize that mankind recognized the multiplying capability of the multiplier onion (Allium cepa aggregatum). I assume that those ancient Potato Onions once had a more diverse gene pool when they existed in the wild, and man discovered that by selecting for those with the largest yield, he was also inadvertently selecting for those that had less tendency to go to seed. The tendency to go to seed didn't matter though, because the

Potato Onion was perpetuated by asexual means. Once a desired Potato Onion made its way into cultivation, it was cloned year after year, never needing to flower and produce seeds.

#### **Modern Cultivation and Use of Potato Onions**

Potato Onions were common a century ago. They are, however, quite rare and unknown today. We have undoubtedly lost many cultivated varieties to extinction. When Great Grandma quit asexually cloning her own heirloom white Potato Onion, it probably died along with her.

When you obtain a starter Potato Onion bulb today, you can plant that bulb to obtain up to eight more cloned bulbs for eating and replanting. But that original bulb you started with also had a long history of asexual cloning many years previous to our great grandmother. The cloned genes in your starter bulb today likely contain the same cloned genes from some bulb more than a century ago. If someone could get that clone to produce a flower, he'd likely find some parentage genes in that flower that existed more than a hundred years ago!

I therefore suggest that by saving and planting true seeds from the occasional Potato Onion that throws up a flower, we could restore some of the lost varieties of Potato Onions that are currently extinct.

## The Difficulty of Obtaining True Seeds

I currently think there is no one sure-fire trick to stimulate flower production in Potato Onions. However, I believe that in the same way we can occasionally find a broody hen (I have seen two or three over my two decades of raising backyard chickens), we might also see an occasional seed stalk from a Potato Onion. The sure-fire trait of Potato Onion flowering was probably bred out many centuries ago.

If we were to experience one of our Potato Onion bulbs sending up a seed stalk, and then saved and grew out the resulting seeds, we might also be selecting backwards to the genetics of past centuries when Potato Onions still possessed that trait. I propose, therefore, that the new Potato Onion varieties I am now working with might be more apt to flower than an old heirloom Potato Onion from Great Grandma's day!