

## The Carniolan- Italian Cross

In response to a call for information concerning the Carniolan-Italian cross of bees, I will say that I have in one of my apiaries, side by side, 5 colonies in 10-frame hives, representatives of their respective strains, each having characteristics of its strain, and I could not say which I prefer.

First in the row is the Buckeye 3-banded long-tonged, every bee alike; their superiors do not exist. Next imported Carniolan, just ended her third season; next the Muth strain golden Italian; then two Carniolan-Italians.

It was exceedingly interesting to study closely the nature of each during the last three seasons. Early last spring the first three mentioned started off with the Carniolan the strongest, the 3-banders second, and golden third. For a time neither of them seemed to increase, owing to the unfavorable spring. Then all at once the Carniolan began to increase rapidly—just seemed to boom; it was not long until I gave the other two each a frame of brood and bees from them to start them agoing, because it was getting late if I expected honey. One could see the improvement in the two very quickly.

The latter part of May I noticed queen-cells in the Carniolan colony, and, knowing their willingness to swarm, I quickly changed their minds by making two nuclei, when it was time for mating, placed entrance-guards in front of all the hives except the 3-banders, and I now have two true-to-name of the Carniolan-Italian cross. Their bees resemble the 3-

banders, though somewhat darker, and bands narrower, with characteristics of Carniolans, gentle to the extreme, boil over when you open the hive; and breeders, never had better. It was no time until these two nuclei were as strong as any in the lot. The only objection that prevents them from becoming popular in the hands of novices and apiarists having many colonies, is their swarming propensity; however, I must say I give them close attention, and seem to catch them in the nick of time, as they never swarmed for me.

In the fall of 1901 I presented a friend of mine with one of the fine Carniolans, because he was "taken" with their gentleness; but last August he did away with them, "Because," he said, "that colony swarmed only seven times in less than 3 months," so it seems I averted their swarming impulse, and my friend failed to understand.

The Carniolan-Italians will always have my closest attention. I find they winter better, and breed up better in the spring. I helped strengthen weaker colonies with frames of brood and bees from them.

My other strains have good qualifications which these bees do not possess.

I often thought if I could combine only good qualifications of these different strains I would have a race that might be christened "Eureka" bees.

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### Prolific Queens and Large Hives

Paper read at Minnesota Bee-Keepers' Convention by W. T. Stahmann.

Much attention has been paid by queen-breeders to color and beauty of queens, and too little to the prolificness, comp-building and honey-gathering capacity of their progeny. When a practical bee-man wishes to improve his bees he does not as