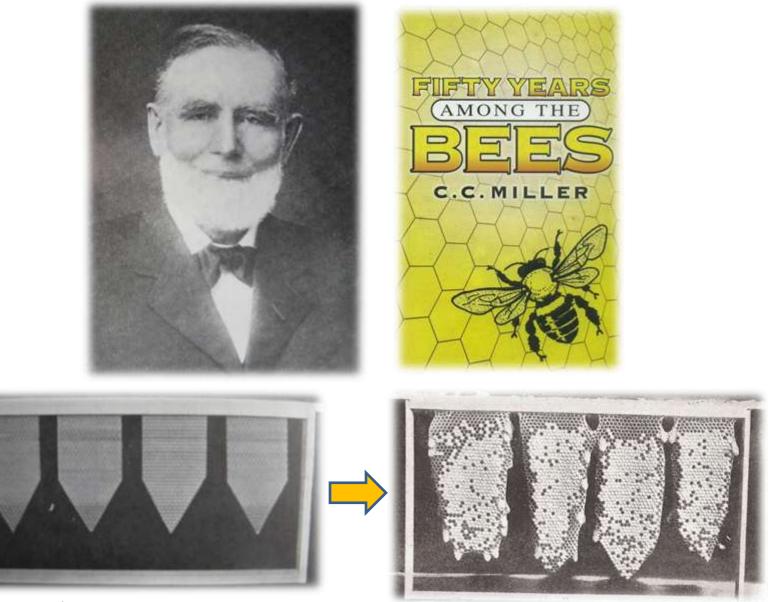


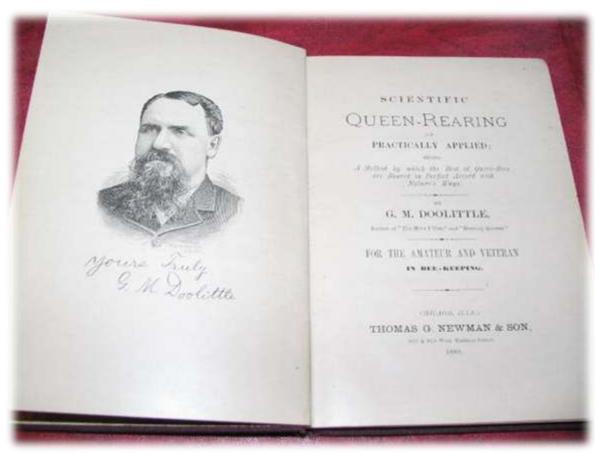
### DR. C. C. MILLER



Source: Used with permission from A.I. Root Co. and Dadant & Sons

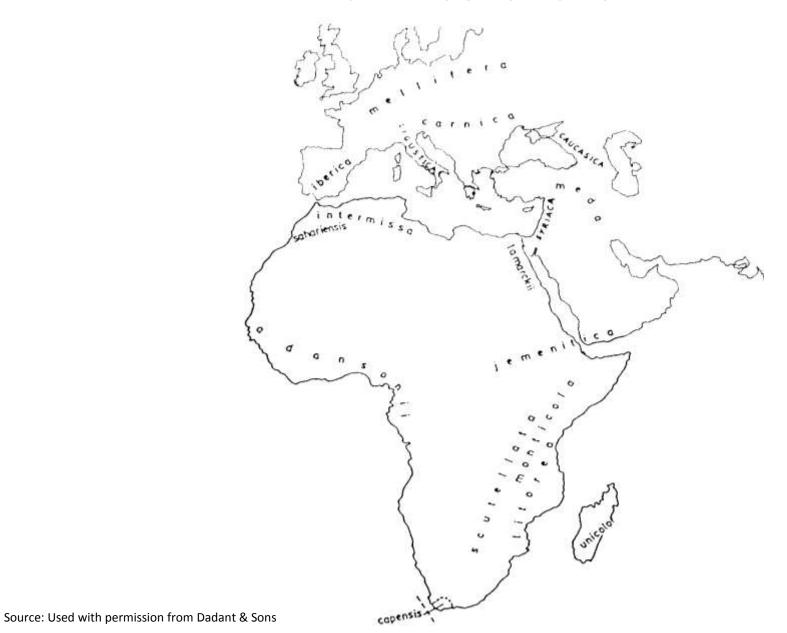
#### **G.M. DOOLITTLE**



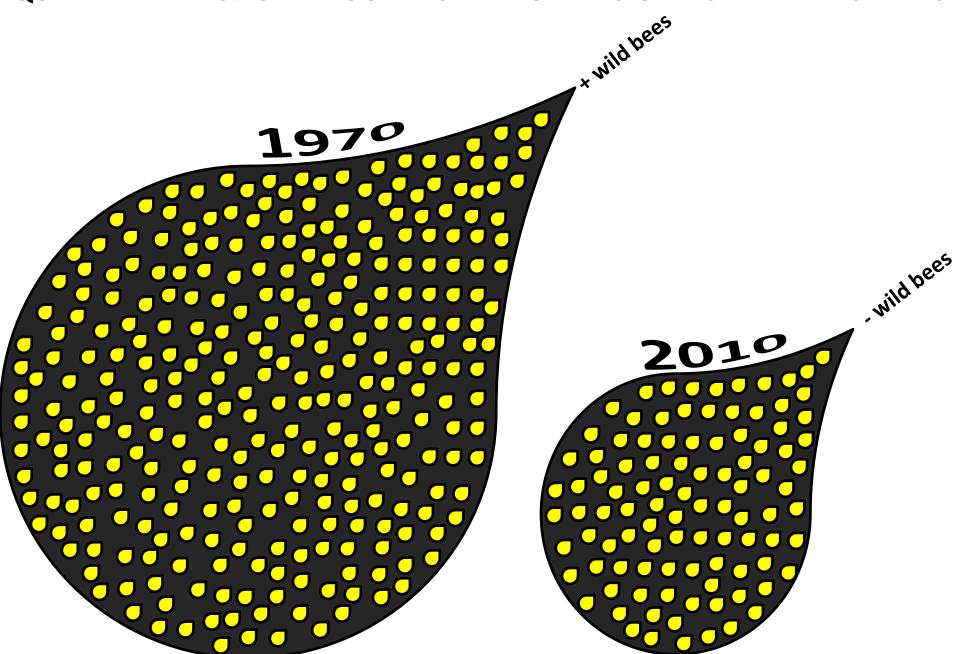




### **GENE POOL ORIGINS**



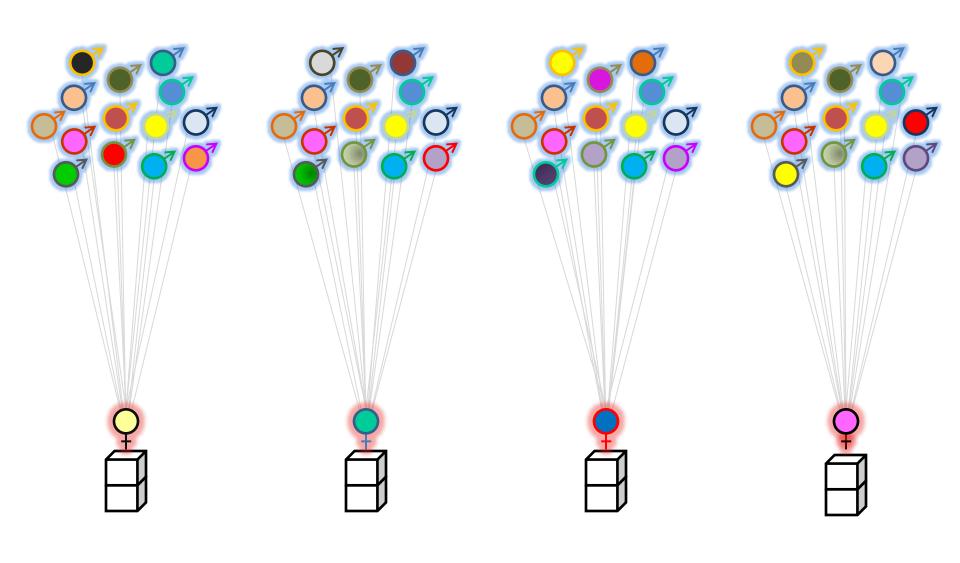
#### QUEEN BREEDERS: GENE POOL HAS NARROWED SIGNIFICANTLY IN 40 YEARS



## WHO'S YOUR DADDY? There Are Fourteen Or Fifteen Fathers In Each Hive



### THE ENORMITY OF THE OTS GENE POOL



# FROM GRAFTING TO NOTCHING Hands-On Wins Hands-Down

1973-1987



1980s-PRESENT



### **OTS**

# **STEP 1**: SCAN THE BROOD FRAME FOR 36-HOUR-OR-YOUNGER LARVAE



### **OTS**

### **STEP 2**: CHOOSE THE BEST LARVAE TO NOTCH

