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Russell Swinney
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Dear Russell,

I finished the study of the new honey sample you submitted last week for analysis. The procedure I followed for this sample is identical to the ones I have used in the past on your other submitted samples. If you wish, I will resend them to you. However, you could also refer to the previous reports if you want to read the procedure.

ANALYSIS

Sample 2013

For your reference, I have included your last honey analysis in with this one so you can compare the two results (Table 1). This year, your current honey sample is dominated by pollen from one source, mesquite, therefore your honey would be classified as a **Unifloral Mesquite Honey**. As you can see from the pollen count, there isn't much variety in this year's sample suggesting the bees were hard pressed to find many nectar sources. I suspect that the terrible drought we are having is creating a real hardship on the bees as well as us! The overall pollen concentration value of 47,753 pollen grains/10 g of honey, which is higher than the previous sample you sent, but it is due to the mesquite. Mesquite honey generally reflects a bit of overrepresentation in terms of the amount of pollen in a unifloral mesquite honey. If the weather conditions had been better the pollen concentration values would be even higher. However, under stressful conditions most plants tend to produce less nectar and less pollen.

Table 1

Russell Swinney Samples

Pollen Taxa	3/1/11	%	8/10/1	%
ASTERACEAE (dandelion-type)	1	0.5%	0	0.0%

ASTERACEAE (ragweed-type)	3	1.5%	1	0.5%
ASTERACEAE (sunflower-type)	2	1.0%	16	7.2%
BRASSICACEAE (mustard family)	1	0.5%	0	0.0%
<i>Carya</i> (pecan, hickory)	0	0.0%	1	0.5%
<i>Celtis</i> (hackberry)	1	0.5%	0	0.0%
<i>Cephalanthus</i> (buttonbush)	5	2.5%	13	5.9%
<i>Cirsium</i> (thistle)	0	0.0%	1	0.5%
<i>Dalea</i> (prairie clover)	0	0.0%	1	0.5%
<i>Diospyros</i> (persimmon)	2	1.0%	5	2.3%
<i>Erodium</i> (stork's bill)	1	0.5%	0	0.0%
<i>Gaura</i> (bee blossom)	0	0.0%	1	0.5%
LAMIACEAE (mint)	1	0.5%	0	0.0%
LILIACEAE (lily family)	2	1.0%	0	0.0%
<i>Liquidambar</i> (sweet gum)	2	1.0%	0	0.0%
<i>Melilotus</i> (clover)	52	26.0%	0	0.0%
<i>Mimosa</i> (mimosa)	13	6.5%	1	0.5%
<i>Opuntia</i> (prickly pear cactus)	1	0.5%	0	0.0%
<i>Oxalis</i> (woodsorrel)	8	4.0%	0	0.0%
<i>Parthenocissus</i> (Virginia creeper)	1	0.5%	0	0.0%
<i>Prosopis</i> (mesquite)	25	12.5%	141	63.8%
<i>Prunus</i> (plum, peach, cherry)	2	1.0%	0	0.0%
<i>Quercus</i> (oak)	12	6.0%	20	9.0%
RANUNCULACEAE (buttercups)	0	0.0%	7	3.2%
RHAMNACEAE (buckthorn)	2	1.0%	6	2.7%
ROSACEAE (rose family)	9	4.5%	0	0.0%
<i>Rubus</i> (blackberry, dewberry)	5	2.5%	0	0.0%
<i>Salix</i> (willow)	30	15.0%	4	1.8%
<i>Trifolium</i> (clover)	3	1.5%	0	0.0%
<i>Ulmus</i> (elm)	1	0.5%	1	0.5%
<i>Vicia</i> (vetch)	4	2.0%	0	0.0%
<i>Zanthoxylum</i> (prickly ash)	13	6.5%	3	1.4%
Unknown pollen	2	1.0%	0	0.0%
Totals	200	100%	221	100.0%
Lycopodium spores counted	185		86	
Pollen concentration per 10 grams of honey	40,000		47,753	

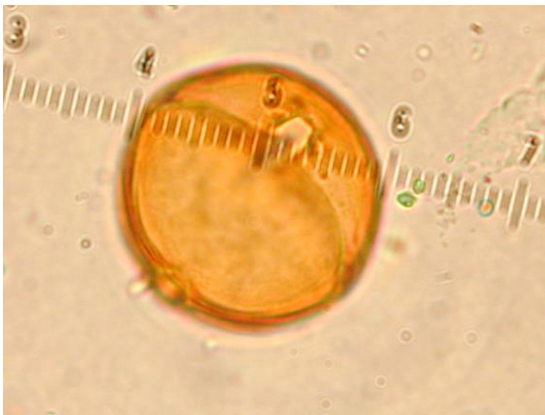
Honey Pollen Categories

- A= >45% predominant pollen type
- B= 16-45% secondary pollen type
- C= 3-15% important minor pollen type
- D= <3% minor pollen type

Honey Pollen Concentration Categories

- Category I 0-20,000/10 g
- Category II 20,000-100,000/10 g
- Category III 100,000-500,000/10 g
- Category IV 500,000-1,000,000/10g

FIG 1
Key Pollen Types from your original first Sample
(Scale is in microns; 25 um between numbers)



Diospyros



Cephalanthus



Mimosa



Parthenocissus

I hope this summary gives you a better idea about the composition of the honey you sent for analysis. Should you desire additional clarification of this report please let me know.

Sincerely,

Vaughn M. Bryant, Jr.

Professor and Director