

PT ID- NRL/PT-FV/2020/Grape-1

23-10-2020

**PRELIMINARY REPORT**

SCHEME: PESTICIDE RESIDUE IN GRAPE HOMOGENATE

(ID: NRL/PT-FV/2020/Grape-1)



PC-1027



**PROFICIENCY TESTING SCHEME**

CONDUCTED BY

**National Referral Laboratory**

**ICAR-National Research Centre for Grapes, Pune**

**(An ISO/IEC-17043:2010 accredited PTP)**

	Prepared by	Authorized by
Signature		
Name	Dr. Ahammed Shabeer TP (QM and PT Coordinator)	Dr. Kaushik Banerjee (I/C, NRL, ICAR-NRCG)

भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान केन्द्र, पुणे  
ICAR-National Research Centre for Grapes, Pune

PT ID- NRL/PT-FV/2020/Grape-1

Dear Participants,

We have compiled and evaluated the results submitted by you for the PT scheme **NRL/PT-FV/2020/Grape-1**. The report contains results of the participant laboratories along with the assigned values, standard deviation for proficiency assessment and preliminary z-score. If you find any deviation in the result submitted by your laboratory, please contact through E-mail at [apedanrlpt@gmail.com](mailto:apedanrlpt@gmail.com) or write to I/C NRL, ICAR-NRCG/PT-Coordinator, National Referral Laboratory, ICAR-National Research Centre for Grapes, Pune on or before 28-10-2020.

**Contact details:**

I/C NRL, NRCG/ PT-Coordinator  
National Referral Laboratory  
ICAR-National Research Centre for Grapes  
Manjari Farm, Pune- 412307  
E-mail: [apedanrlpt@gmail.com](mailto:apedanrlpt@gmail.com)



PT ID- NRL/PT-FV/2020/Grape-1

**PRELIMINARY RESULTS**

**Table-1: Assigned Value and Standard Deviation for Proficiency Assessment (SDPA)**

Sr. No.	Test parameter	Assigned Value (mg/kg)	Standard Deviation for Proficiency Assessment (mg/kg)
1.	Azoxystrobin	0.0514	0.0077
2.	Buprofezin	0.0683	0.0102
3.	Carbendazim	0.0492	0.0074
4.	Chlorpyrifos	0.129	0.0194
5.	Difenconazole	0.0550	0.0083
6.	Dimethomorph	0.0467	0.0070
7.	Fluopyram	0.0178	0.0027
8.	Fluxapyroxad	0.0196	0.0029
9.	Imidacloprid	0.0598	0.0090
10.	Kresoxim methyl	0.0431	0.0065
11.	Mandipropamid	0.0652	0.0098
12.	Metrafenone	0.0190	0.0029
13.	Myclobutanil	0.0177	0.0027
14.	Pyraclostrobin	0.0161	0.0024

**Note:**

The SDPA value calculated based on the participants' submitted results was found to be unreasonably low. Hence, SDPA of 15% of the assigned value was logically applied based on the PT provider's previous experience and expertise on z score calculations.

Considering the overall uncertainty of multiresidue analysis and proximity of the assigned value to the LOQ level, the z-scores were not calculated for the analytes viz. Chloromequat chloride, Spirotetramat, Spirotetramat enol and Thiamethoxam. These analytes were also not considered for false positives and false negatives.

**भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान केन्द्र, पुणे**  
**ICAR-National Research Centre for Grapes, Pune**

**Table 2a: Preliminary report showing analyte specific assigned values, robust standard deviation, reported concentration and z-score of the participating laboratories**

Laboratory code	Azoxystrobin		Buprofezin		Carbendazim		Chlorpyrifos		Difenconazole		Dimethomorph		Fluopyram	
	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.
	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score
Lab - 01	0.0521	<b>0.09</b>	0.0712	<b>0.28</b>	0.0486	<b>-0.08</b>	0.133	<b>0.20</b>	0.0550	<b>0.00</b>	0.0464	<b>-0.04</b>	0.0205	<b>1.00</b>
Lab - 02	0.0494	<b>-0.26</b>	0.0668	<b>-0.15</b>	0.0549	<b>0.77</b>	0.128	<b>-0.06</b>	0.0558	<b>0.10</b>	0.0450	<b>-0.24</b>	0.0189	<b>0.41</b>
Lab - 03	0.0515	<b>0.01</b>	0.0685	<b>0.02</b>	0.0562	<b>0.95</b>	0.124	<b>-0.26</b>	0.0561	<b>0.13</b>	0.0470	<b>0.04</b>	0.0180	<b>0.07</b>
Lab - 04	0.0512	<b>-0.03</b>	0.0658	<b>-0.25</b>	0.0524	<b>0.43</b>	0.115	<b>-0.73</b>	0.0523	<b>-0.33</b>	0.0478	<b>0.16</b>	0.0145	<b>-1.22</b>
Lab - 05	0.0516	<b>0.03</b>	0.0662	<b>-0.21</b>	0.0507	<b>0.20</b>	0.140	<b>0.55</b>	0.0537	<b>-0.16</b>	0.0496	<b>0.41</b>	0.0190	<b>0.44</b>
Lab - 06	0.0522	<b>0.10</b>	0.0682	<b>-0.01</b>	0.0470	<b>-0.30</b>	0.136	<b>0.36</b>	0.0552	<b>0.02</b>	0.0460	<b>-0.10</b>	0.0182	<b>0.15</b>
Lab - 07	0.0510	<b>-0.05</b>	0.0652	<b>-0.30</b>	0.0404	<b>-1.19</b>	0.120	<b>-0.47</b>	0.0581	<b>0.37</b>	0.0477	<b>0.14</b>	0.0188	<b>0.37</b>
Lab - 08	0.0527	<b>0.17</b>	0.0680	<b>-0.03</b>	0.0517	<b>0.34</b>	0.135	<b>0.30</b>	0.0557	<b>0.08</b>	0.0487	<b>0.29</b>	0.0185	<b>0.26</b>
Lab - 09	0.0490	<b>-0.31</b>	0.0620	<b>-0.62</b>	0.0480	<b>-0.16</b>	0.128	<b>-0.06</b>	0.0470	<b>-0.96</b>	0.0440	<b>-0.39</b>	0.0180	<b>0.07</b>
Lab - 10	0.0547	<b>0.43</b>	0.0672	<b>-0.11</b>	0.0480	<b>-0.16</b>	0.144	<b>0.77</b>	NA	NA	NA	NA	0.0192	<b>0.52</b>
Lab - 11	0.0494	<b>-0.26</b>	0.0677	<b>-0.06</b>	0.0527	<b>0.47</b>	0.126	<b>-0.16</b>	0.0497	<b>-0.64</b>	0.0469	<b>0.03</b>	0.0165	<b>-0.48</b>
Lab - 12	0.0550	<b>0.47</b>	0.0749	<b>0.65</b>	0.0682	<b>2.57</b>	0.138	<b>0.46</b>	0.0633	<b>1.00</b>	0.0472	<b>0.07</b>	0.0153	<b>-0.93</b>
Lab - 13	0.0479	<b>-0.45</b>	0.0648	<b>-0.34</b>	0.0472	<b>-0.27</b>	0.128	<b>-0.06</b>	0.0515	<b>-0.42</b>	0.0465	<b>-0.03</b>	0.0160	<b>-0.67</b>
Lab - 14	0.0511	<b>-0.04</b>	0.0665	<b>-0.18</b>	0.0405	<b>-1.18</b>	0.142	<b>0.66</b>	0.0524	<b>-0.31</b>	0.0461	<b>-0.09</b>	0.0167	<b>-0.41</b>
Lab - 15	0.0495	<b>-0.25</b>	0.0628	<b>-0.54</b>	0.0395	<b>-1.31</b>	0.120	<b>-0.47</b>	0.0554	<b>0.05</b>	0.0476	<b>0.13</b>	0.0190	<b>0.44</b>
Lab - 16	0.0487	<b>-0.35</b>	0.0745	<b>0.61</b>	0.0553	<b>0.82</b>	0.132	<b>0.15</b>	0.0543	<b>-0.08</b>	0.0430	<b>-0.53</b>	0.0184	<b>0.22</b>

*Handwritten signature*

*Handwritten signature*

**भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान केन्द्र, पुणे**  
**ICAR-National Research Centre for Grapes, Pune**

Laboratory code	Azoxystrobin		Buprofezin		Carbendazim		Chlorpyrifos		Difenconazole		Dimethomorph		Fluopyram	
	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.
	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score
Lab - 17	0.0503	<b>-0.14</b>	0.0704	<b>0.21</b>	0.0466	<b>-0.35</b>	0.130	<b>0.05</b>	0.0525	<b>-0.30</b>	0.0440	<b>-0.39</b>	0.0179	<b>0.04</b>
Lab - 18	0.0520	<b>0.08</b>	0.0750	<b>0.66</b>	0.0898	<b>5.49</b>	0.121	<b>-0.42</b>	0.0580	<b>0.36</b>	0.0511	<b>0.63</b>	0.0250	<b>2.67</b>
Lab - 19	0.0642	<b>1.66</b>	0.0684	<b>0.01</b>	0.0739	<b>3.34</b>	0.120	<b>-0.46</b>	0.0734	<b>2.22</b>	0.0711	<b>3.49</b>	0.0242	<b>2.37</b>
Lab - 20	0.0521	<b>0.09</b>	0.0705	<b>0.22</b>	0.0526	<b>0.46</b>	0.130	<b>0.05</b>	0.0541	<b>-0.11</b>	0.0480	<b>0.19</b>	0.0180	<b>0.07</b>
Lab - 21	0.0521	<b>0.09</b>	0.0711	<b>0.27</b>	0.0520	<b>0.38</b>	0.128	<b>-0.06</b>	0.0541	<b>-0.11</b>	0.0475	<b>0.11</b>	0.0179	<b>0.04</b>
Lab - 22	0.0514	<b>0.00</b>	0.0661	<b>-0.22</b>	0.0287	<b>-2.77</b>	0.125	<b>-0.21</b>	0.0517	<b>-0.40</b>	0.0488	<b>0.30</b>	0.0163	<b>-0.56</b>
Lab - 23	0.0529	<b>0.19</b>	0.0717	<b>0.33</b>	0.0501	<b>0.12</b>	0.130	<b>0.05</b>	0.0545	<b>-0.06</b>	0.0475	<b>0.11</b>	0.0179	<b>0.04</b>
Lab - 24	0.0470	<b>-0.57</b>	0.0650	<b>-0.32</b>	0.0450	<b>-0.57</b>	0.125	<b>-0.21</b>	0.0520	<b>-0.36</b>	0.0450	<b>-0.24</b>	0.0160	<b>-0.67</b>
Lab - 25	0.0466	<b>-0.62</b>	0.0699	<b>0.16</b>	0.0534	<b>0.57</b>	0.138	<b>0.46</b>	0.0555	<b>0.06</b>	0.0416	<b>-0.73</b>	0.0181	<b>0.11</b>
Lab - 26	NA	NA	NA	NA	NA	NA	0.108	<b>-1.10</b>	NA	NA	NA	NA	NA	NA
Lab - 27	0.0542	<b>0.36</b>	0.0699	<b>0.16</b>	0.0497	<b>0.07</b>	0.137	<b>0.41</b>	0.0531	<b>-0.23</b>	0.0455	<b>-0.17</b>	0.0183	<b>0.19</b>
Lab - 28	0.0510	<b>-0.05</b>	0.0710	<b>0.26</b>	0.0540	<b>0.65</b>	0.142	<b>0.68</b>	0.0547	<b>-0.04</b>	0.0453	<b>-0.20</b>	0.0193	<b>0.56</b>
Lab - 29	0.0528	<b>0.18</b>	0.0713	<b>0.29</b>	0.0494	<b>0.03</b>	0.130	<b>0.05</b>	0.0528	<b>-0.27</b>	0.0487	<b>0.29</b>	0.0190	<b>0.44</b>
Lab - 30	0.0512	<b>-0.03</b>	0.0646	<b>-0.36</b>	0.0412	<b>-1.08</b>	0.120	<b>-0.47</b>	0.0564	<b>0.17</b>	0.0488	<b>0.30</b>	0.0186	<b>0.30</b>
Lab - 31	0.0524	<b>0.13</b>	0.0689	<b>0.06</b>	0.0364	<b>-1.73</b>	0.139	<b>0.51</b>	0.0533	<b>-0.20</b>	0.0404	<b>-0.90</b>	0.0169	<b>-0.33</b>
Lab - 32	0.0439	<b>-0.97</b>	0.0646	<b>-0.36</b>	0.0501	<b>0.12</b>	0.121	<b>-0.42</b>	0.0569	<b>0.23</b>	0.0480	<b>0.19</b>	0.0154	<b>-0.89</b>
Lab - 33	0.0582	<b>0.88</b>	0.0733	<b>0.49</b>	0.0507	<b>0.20</b>	0.130	<b>0.05</b>	0.0584	<b>0.41</b>	0.0508	<b>0.59</b>	0.0183	<b>0.19</b>
Lab - 34	0.0497	<b>-0.22</b>	0.0696	<b>0.13</b>	0.0790	<b>4.03</b>	0.132	<b>0.15</b>	0.0611	<b>0.73</b>	0.0498	<b>0.44</b>	0.0130	<b>-1.78</b>
Lab - 35	0.0540	<b>0.34</b>	0.0630	<b>-0.52</b>	0.0530	<b>0.51</b>	0.132	<b>0.15</b>	0.0540	<b>-0.12</b>	0.0440	<b>-0.39</b>	0.0160	<b>-0.67</b>
Lab - 36	0.0528	<b>0.18</b>	0.0722	<b>0.38</b>	0.0482	<b>-0.14</b>	0.125	<b>-0.21</b>	0.0593	<b>0.52</b>	0.0414	<b>-0.76</b>	0.0168	<b>-0.37</b>

*Handwritten signature*

*Handwritten signature*

**भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान केन्द्र, पुणे**  
**ICAR-National Research Centre for Grapes, Pune**

Laboratory code	Azoxystrobin		Buprofezin		Carbendazim		Chlorpyriphos		Difenconazole		Dimethomorph		Fluopyram	
	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.
	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score
Lab - 37	0.0531	<b>0.22</b>	0.0654	<b>-0.28</b>	0.0481	<b>-0.15</b>	0.138	<b>0.46</b>	0.0524	<b>-0.31</b>	0.0450	<b>-0.24</b>	0.0171	<b>-0.26</b>
Lab - 38	0.0540	<b>0.34</b>	0.0724	<b>0.40</b>	0.0363	<b>-1.74</b>	0.112	<b>-0.88</b>	0.0544	<b>-0.07</b>	0.0450	<b>-0.24</b>	0.0164	<b>-0.52</b>
Lab - 39	0.0606	<b>1.19</b>	0.0747	<b>0.63</b>	0.0518	<b>0.35</b>	0.131	<b>0.10</b>	0.0559	<b>0.11</b>	0.0501	<b>0.49</b>	0.0247	<b>2.56</b>
Lab - 40	0.0506	<b>-0.10</b>	0.0696	<b>0.13</b>	0.0476	<b>-0.22</b>	0.128	<b>-0.06</b>	0.0551	<b>0.01</b>	0.0490	<b>0.33</b>	0.0183	<b>0.19</b>
Lab - 41	0.0546	<b>0.42</b>	0.0584	<b>-0.97</b>	0.0491	<b>-0.01</b>	0.129	<b>-0.01</b>	0.0597	<b>0.57</b>	0.0423	<b>-0.63</b>	NA	NA
Lab - 42	0.0497	<b>-0.22</b>	0.0663	<b>-0.20</b>	0.0499	<b>0.09</b>	0.133	<b>0.20</b>	0.0550	<b>0.00</b>	0.0456	<b>-0.16</b>	0.0173	<b>-0.19</b>
Lab - 43	0.0451	<b>-0.82</b>	0.0687	<b>0.04</b>	0.0566	<b>1.00</b>	0.120	<b>-0.47</b>	0.0541	<b>-0.11</b>	0.0526	<b>0.84</b>	0.0173	<b>-0.19</b>
Lab - 44	0.0550	<b>0.47</b>	0.0630	<b>-0.52</b>	0.0425	<b>-0.91</b>	0.131	<b>0.08</b>	0.0660	<b>1.33</b>	0.0502	<b>0.50</b>	0.0176	<b>-0.07</b>
Lab - 45	0.0483	<b>-0.40</b>	0.0605	<b>-0.76</b>	0.0403	<b>-1.20</b>	0.136	<b>0.36</b>	0.0469	<b>-0.98</b>	0.0432	<b>-0.50</b>	0.0153	<b>-0.93</b>
Lab - 46	0.0455	<b>-0.77</b>	0.0727	<b>0.43</b>	0.0436	<b>-0.76</b>	0.113	<b>-0.83</b>	0.0560	<b>0.12</b>	0.0438	<b>-0.41</b>	0.0200	<b>0.81</b>
<p><math> z  \leq 2</math> Acceptable, <math>2 &lt;  z  \leq 3</math> Questionable, <math> z  &gt; 3</math> Unacceptable z-score mentioned in Black: Acceptable; Blue: Questionable; Red: Unacceptable</p>														

*Handwritten signature*

*Handwritten signature*

**भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान केन्द्र, पुणे**  
**ICAR-National Research Centre for Grapes, Pune**

**Table 2b: Preliminary report showing analyte specific assigned values, robust standard deviation, reported concentration and z-score of the participating laboratories**

Laboratory code	Fluxapyroxod		Imidacloprid		Kresoxim methyl		Mandipropamid		Metrafenone		Myclobutanil		Pyaclostrobin	
	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.
	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score
Lab - 01	0.0209	<b>0.45</b>	0.0590	<b>-0.09</b>	0.0410	<b>-0.32</b>	0.0682	<b>0.31</b>	0.0194	<b>0.14</b>	0.0180	<b>0.11</b>	0.0152	<b>-0.38</b>
Lab - 02	0.0203	<b>0.24</b>	0.0561	<b>-0.41</b>	0.0434	<b>0.05</b>	0.0654	<b>0.02</b>	0.0179	<b>-0.38</b>	0.0156	<b>-0.78</b>	0.0153	<b>-0.33</b>
Lab - 03	0.0210	<b>0.48</b>	0.0590	<b>-0.09</b>	0.0440	<b>0.14</b>	0.0650	<b>-0.02</b>	0.0190	<b>0.00</b>	0.0180	<b>0.11</b>	0.0140	<b>-0.88</b>
Lab - 04	0.0194	<b>-0.07</b>	0.0558	<b>-0.44</b>	0.0416	<b>-0.23</b>	0.0654	<b>0.02</b>	0.0181	<b>-0.31</b>	0.0177	<b>0.00</b>	0.0143	<b>-0.75</b>
Lab - 05	0.0186	<b>-0.34</b>	0.0645	<b>0.52</b>	0.0451	<b>0.31</b>	0.0657	<b>0.05</b>	0.0190	<b>0.00</b>	0.0188	<b>0.41</b>	0.0165	<b>0.17</b>
Lab - 06	0.0194	<b>-0.07</b>	0.0624	<b>0.29</b>	0.0442	<b>0.17</b>	0.0642	<b>-0.10</b>	0.0192	<b>0.07</b>	0.0182	<b>0.19</b>	0.0174	<b>0.54</b>
Lab - 07	0.0198	<b>0.07</b>	0.0556	<b>-0.47</b>	0.0404	<b>-0.42</b>	0.0637	<b>-0.15</b>	0.0203	<b>0.45</b>	0.0193	<b>0.59</b>	0.0195	<b>1.42</b>
Lab - 08	0.0200	<b>0.14</b>	0.0637	<b>0.43</b>	0.0464	<b>0.51</b>	0.0673	<b>0.21</b>	0.0200	<b>0.34</b>	0.0177	<b>0.00</b>	0.0157	<b>-0.17</b>
Lab - 09	0.0160	<b>-1.24</b>	0.0560	<b>-0.42</b>	0.0440	<b>0.14</b>	0.0640	<b>-0.12</b>	0.0180	<b>-0.34</b>	0.0160	<b>-0.63</b>	0.0150	<b>-0.46</b>
Lab - 10	0.0225	<b>1.00</b>	0.0564	<b>-0.38</b>	0.0465	<b>0.52</b>	0.0614	<b>-0.39</b>	0.0228	<b>1.31</b>	0.0176	<b>-0.04</b>	NA	<b>NA</b>
Lab - 11	0.0179	<b>-0.59</b>	0.0592	<b>-0.07</b>	0.0419	<b>-0.18</b>	0.0622	<b>-0.31</b>	0.0186	<b>-0.14</b>	0.0178	<b>0.04</b>	0.0143	<b>-0.75</b>
Lab - 12	0.0182	<b>-0.48</b>	0.0649	<b>0.57</b>	0.0459	<b>0.43</b>	0.0689	<b>0.38</b>	0.0213	<b>0.79</b>	0.0191	<b>0.52</b>	0.0162	<b>0.04</b>
Lab - 13	0.0188	<b>-0.28</b>	0.0601	<b>0.03</b>	0.0425	<b>-0.09</b>	0.0638	<b>-0.14</b>	0.0179	<b>-0.38</b>	0.0170	<b>-0.26</b>	0.0147	<b>-0.58</b>
Lab - 14	0.0175	<b>-0.72</b>	0.0605	<b>0.08</b>	0.0420	<b>-0.17</b>	0.0616	<b>-0.37</b>	0.0169	<b>-0.72</b>	0.0169	<b>-0.30</b>	0.0142	<b>-0.79</b>
Lab - 15	0.0192	<b>-0.14</b>	0.0544	<b>-0.60</b>	0.0415	<b>-0.25</b>	0.0627	<b>-0.26</b>	0.0200	<b>0.34</b>	0.0192	<b>0.56</b>	0.0185	<b>1.00</b>
Lab - 16	0.0225	<b>1.00</b>	0.0635	<b>0.41</b>	0.0437	<b>0.09</b>	0.0642	<b>-0.10</b>	0.0198	<b>0.28</b>	0.0181	<b>0.15</b>	0.0184	<b>0.96</b>
Lab - 17	0.0189	<b>-0.24</b>	0.0596	<b>-0.02</b>	0.0418	<b>-0.20</b>	0.0634	<b>-0.18</b>	0.0180	<b>-0.34</b>	0.0173	<b>-0.15</b>	0.0160	<b>-0.04</b>

*Handwritten signature*

*Handwritten signature*

**भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान केन्द्र, पुणे**  
**ICAR-National Research Centre for Grapes, Pune**

Laboratory code	Fluxapyroxod		Imidacloprid		Kresoxim methyl		Mandipropamid		Metrafenone		Myclobutanil		Pyclostrobin	
	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.
	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score
Lab - 18	0.0252	<b>1.93</b>	0.0598	<b>0.00</b>	0.0549	<b>1.82</b>	0.0793	<b>1.44</b>	0.0256	<b>2.28</b>	0.0202	<b>0.93</b>	0.0198	<b>1.54</b>
Lab - 19	0.0244	<b>1.66</b>	0.0699	<b>1.12</b>	0.0532	<b>1.55</b>	0.0841	<b>1.93</b>	0.0184	<b>-0.21</b>	0.0171	<b>-0.22</b>	0.0244	<b>3.46</b>
Lab - 20	0.0200	<b>0.14</b>	0.0601	<b>0.03</b>	0.0451	<b>0.31</b>	0.0693	<b>0.42</b>	0.0204	<b>0.48</b>	0.0172	<b>-0.19</b>	0.0164	<b>0.13</b>
Lab - 21	0.0192	<b>-0.14</b>	0.0594	<b>-0.04</b>	0.0451	<b>0.31</b>	0.0702	<b>0.51</b>	0.0198	<b>0.28</b>	0.0181	<b>0.15</b>	0.0166	<b>0.21</b>
Lab - 22	0.0182	<b>-0.48</b>	0.0574	<b>-0.27</b>	0.0413	<b>-0.28</b>	0.0587	<b>-0.66</b>	0.0186	<b>-0.14</b>	0.0177	<b>0.00</b>	0.0152	<b>-0.38</b>
Lab - 23	0.0188	<b>-0.28</b>	0.0614	<b>0.18</b>	0.0440	<b>0.14</b>	0.0682	<b>0.31</b>	0.0193	<b>0.10</b>	0.0177	<b>0.00</b>	0.0160	<b>-0.04</b>
Lab - 24	0.0180	<b>-0.55</b>	0.0600	<b>0.02</b>	0.0390	<b>-0.63</b>	0.0630	<b>-0.22</b>	0.0170	<b>-0.69</b>	0.0170	<b>-0.26</b>	0.0140	<b>-0.88</b>
Lab - 25	0.0198	<b>0.07</b>	0.0614	<b>0.18</b>	0.0399	<b>-0.49</b>	0.0671	<b>0.19</b>	0.0191	<b>0.03</b>	0.0170	<b>-0.26</b>	0.0159	<b>-0.08</b>
Lab - 26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lab - 27	0.0186	<b>-0.34</b>	0.0601	<b>0.03</b>	0.0429	<b>-0.03</b>	0.0646	<b>-0.06</b>	0.0192	<b>0.07</b>	0.0171	<b>-0.22</b>	0.0181	<b>0.83</b>
Lab - 28	0.0213	<b>0.59</b>	0.0590	<b>-0.09</b>	0.0410	<b>-0.32</b>	0.0650	<b>-0.02</b>	0.0207	<b>0.59</b>	0.0193	<b>0.59</b>	0.0163	<b>0.08</b>
Lab - 29	0.0201	<b>0.17</b>	0.0594	<b>-0.04</b>	0.0424	<b>-0.11</b>	0.0713	<b>0.62</b>	0.0181	<b>-0.31</b>	0.0158	<b>-0.70</b>	0.0154	<b>-0.29</b>
Lab - 30	0.0202	<b>0.21</b>	0.0545	<b>-0.59</b>	0.0410	<b>-0.32</b>	0.0650	<b>-0.02</b>	0.0204	<b>0.48</b>	0.0198	<b>0.78</b>	0.0191	<b>1.25</b>
Lab - 31	0.0173	<b>-0.79</b>	0.0565	<b>-0.37</b>	0.0399	<b>-0.49</b>	0.0639	<b>-0.13</b>	0.0177	<b>-0.45</b>	0.0155	<b>-0.81</b>	0.0138	<b>-0.96</b>
Lab - 32	0.0195	<b>-0.03</b>	0.0545	<b>-0.59</b>	0.0451	<b>0.31</b>	0.0586	<b>-0.67</b>	0.0163	<b>-0.93</b>	0.0168	<b>-0.33</b>	0.0155	<b>-0.25</b>
Lab - 33	0.0192	<b>-0.14</b>	0.0604	<b>0.07</b>	0.0491	<b>0.92</b>	0.0690	<b>0.39</b>	0.0203	<b>0.45</b>	0.0162	<b>-0.56</b>	0.0180	<b>0.79</b>
Lab - 34	0.0222	<b>0.90</b>	0.0635	<b>0.41</b>	0.0479	<b>0.74</b>	0.0640	<b>-0.12</b>	0.0114	<b>-2.62</b>	0.0202	<b>0.93</b>	0.0158	<b>-0.12</b>
Lab - 35	0.0170	<b>-0.90</b>	0.0570	<b>-0.31</b>	0.0470	<b>0.60</b>	0.0660	<b>0.08</b>	0.0180	<b>-0.34</b>	0.0180	<b>0.11</b>	0.0160	<b>-0.04</b>
Lab - 36	0.0203	<b>0.24</b>	0.0644	<b>0.51</b>	0.0418	<b>-0.20</b>	0.0633	<b>-0.19</b>	0.0209	<b>0.66</b>	0.0175	<b>-0.07</b>	0.0179	<b>0.75</b>
Lab - 37	0.0192	<b>-0.14</b>	0.0592	<b>-0.07</b>	0.0421	<b>-0.15</b>	0.0643	<b>-0.09</b>	0.0194	<b>0.14</b>	0.0173	<b>-0.15</b>	0.0154	<b>-0.29</b>

*Handwritten signature*

*Handwritten signature*



**भाकृअनुप-राष्ट्रीय अंगूर अनुसंधान केन्द्र, पुणे**  
**ICAR-National Research Centre for Grapes, Pune**

Laboratory code	Fluxapyroxod		Imidacloprid		Kresoxim methyl		Mandipropamid		Metrafenone		Myclobutanil		Pyclostrobin	
	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.	Assigned value	Robust Std. Dev.
	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score	Conc. mg/kg	z-score
Lab - 38	0.0196	0.0029	0.0598	0.0090	0.0431	0.0065	0.0652	0.0098	0.0190	0.0029	0.0177	0.0027	0.0161	0.0024
Lab - 38	0.0197	<b>0.03</b>	0.0630	<b>0.36</b>	0.0402	<b>-0.45</b>	0.0653	<b>0.01</b>	0.0229	<b>1.34</b>	0.0183	<b>0.22</b>	0.0181	<b>0.83</b>
Lab - 39	0.0256	<b>2.07</b>	0.0706	<b>1.20</b>	0.0420	<b>-0.17</b>	0.0777	<b>1.28</b>	0.0153	<b>-1.28</b>	0.0117	<b>-2.22</b>	0.0162	<b>0.04</b>
Lab - 40	0.0194	<b>-0.07</b>	0.0548	<b>-0.56</b>	0.0444	<b>0.20</b>	0.0686	<b>0.35</b>	0.0189	<b>-0.03</b>	0.0182	<b>0.19</b>	0.0147	<b>-0.58</b>
Lab - 41	NA	NA	0.0619	<b>0.23</b>	0.0431	<b>0.00</b>	0.0607	<b>-0.46</b>	NA	NA	0.0184	<b>0.26</b>	0.0159	<b>-0.08</b>
Lab - 42	0.0190	<b>-0.21</b>	0.0614	<b>0.18</b>	0.0426	<b>-0.08</b>	0.0627	<b>-0.26</b>	0.0192	<b>0.07</b>	0.0167	<b>-0.37</b>	0.0161	<b>0.00</b>
Lab - 43	0.0185	<b>-0.38</b>	0.0616	<b>0.20</b>	0.0427	<b>-0.06</b>	0.0683	<b>0.32</b>	0.0197	<b>0.24</b>	0.0222	<b>1.67</b>	0.0164	<b>0.13</b>
Lab - 44	0.0233	<b>1.28</b>	0.0650	<b>0.58</b>	0.0392	<b>-0.60</b>	0.0600	<b>-0.53</b>	0.0197	<b>0.24</b>	0.0180	<b>0.11</b>	0.0147	<b>-0.58</b>
Lab - 45	0.0172	<b>-0.83</b>	0.0557	<b>-0.46</b>	0.0362	<b>-1.06</b>	0.0663	<b>0.11</b>	0.0180	<b>-0.34</b>	0.0169	<b>-0.30</b>	0.0145	<b>-0.67</b>
Lab - 46	0.0212	<b>0.55</b>	0.0586	<b>-0.13</b>	0.0457	<b>0.40</b>	0.0603	<b>-0.50</b>	0.0168	<b>-0.76</b>	0.0162	<b>-0.56</b>	0.0164	<b>0.13</b>
z  ≤ 2 Acceptable, 2 <  z  ≤ 3 Questionable,  z  > 3 Unacceptable z-score mentioned in Black: Acceptable; Blue: Questionable; Red: Unacceptable														

\*\*\*\*\*End of Report\*\*\*\*\*

*Handwritten signature*

*Handwritten signature*