Meeting called to order at 9am.

Agenda
1. Introductions
   - welcome (RI)
   - went around tables and said names

2. Review of minutes from the Feb 11. Meeting of the Task Force
   - RI made a motion and JW seconded. Motion to accept minutes as they stand was approved.

3. Status of AZM phaseout

4. Progress on 2008 priorities
   - working on the first 7 research priorities on the list
   - made progress on priorities 2 and 3 of the education priorities
     ** work on 1st priority at extension meetings this winter
   - working on/made progress on priorities 3 and 4 of the regulatory priorities
     ** got Intrepid label (priority 4) a week after the Feb. 2008 meeting

5. Funding activity
   - New projects funded by MBG Marketing, EPA, NorthCentral IPM Program, and Project GREEEN to address issues related to the Guthion phaseout and fruitworm management.
Research activity in 2008
** CBFW control timing (CG)
  ++reduced risk insecticides are more selective and require better timing
  ++set out pheromone traps, first moth start to scout for CBFW eggs, scout for larval activity
  ++all this is time consuming, thus the need for a GDD model
  ++three farms sampled (based on having complete weather and trap data)
  ++LB: how long does it take to accumulate the first 400 GDD (when most of the egg laying takes place)?
    ++CG answer: basically 2 weeks
    ++RI: we can get data from the last 10 years from TNRC to get at this question in more detail
  ++Recommendations:
    Pheromone-baited Traps out ~ 300 GDD base 50 F
    GDD accumulation starts on March 1.
    In both Ottawa and Van Buren County the first CBFW moths emerge ~375 ± 20 GDD base 50 F from March 1.
    Eggs 460 ± 20 GDD base 50 F (biofix + 85 GDD)
    Biofix = GDD accumulated until the date before the First sustained moth capture.
    Plans to link to www.enviroweather.msu.edu

++ discussion on model:
  ==discussion of when the first sustained moth catch should be set
  ==DT: use knowledge of the climate to set your biofix
  ==JW: the model tells us when to set biofix
  ==RI: we need to be conservative in our biofix setting so that we don’t miss early egg laying
  ==A discussion proceeded in which biofix was described as the zero catch date immediately prior to first sustained catch
  ==AT: egg hatch is more important than egg-laying (esp. with regards to spray decisions
 [waiting until after a rain to spray])
  ==CG: we need to be very precise with reduced-risk insect management
  ==LB: so how many GDD does it take for an egg to hatch?
  ==RI: we really don’t know, but I would expect it to be close to 100 GDD
  ==CG: 4-5 days

** CBFW spray timing trial 2008 (RI)
  ++ Confirm GDD in 2007
  ++ Intrepid GDD in 2008
  ==100 GDD timing in 2008 had 5 inches of rain the same day of the application
  ++CG: can’t compare years because of different compounds
  ++RI: also, 2007 timings were about 1 week apart while 2008 spray timings were closer together

-New products for fruitworm control (JW):
  **slide with all products to help us to classify the different compounds
  **we are getting more products in new classes that will help fill the toolbox
  **Rimon in the IR-4 pipeline: only thing slowing this down are some phytotoxicity issues that are being worked out
  **Neonic.s is one of the more important classes that is coming out
  ++because of the way they work and the breadth of activity
    ++Calypso: hit a snag with EPA with regards to the risk cup
**Oxadiazines: Avaunt, Alverde**

**Anthranilic Diamides: Altacor**

++this class is extremely safe (labels aren’t even getting a caution on the label)
++this means mammalian toxicity is low, dietary risk is very low

**When can we expect registrations?**

++See following Table from JW PowerPoint:

<table>
<thead>
<tr>
<th>Product</th>
<th>IR -4 Workshop “A” Priority</th>
<th>Field Trial At TNRC</th>
<th>Expected Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calypso</td>
<td>2001</td>
<td>2002</td>
<td>2007</td>
</tr>
<tr>
<td>Avaunt</td>
<td>2002</td>
<td>2003</td>
<td>2008</td>
</tr>
<tr>
<td>Rimon</td>
<td>2004</td>
<td>2005</td>
<td>2010</td>
</tr>
<tr>
<td>Altacor</td>
<td>2006</td>
<td>2007</td>
<td>2012</td>
</tr>
<tr>
<td>Alverde</td>
<td>2007</td>
<td>2008</td>
<td>2013</td>
</tr>
</tbody>
</table>

**Insecticide control for fruitworms (JW):**

++Guthion kept everything 5% or lower
++3 applications that were 14 days apart
++Alverde had more single berry but low total later (not surprising given how this compound works)
++Assail was stronger at preventing single berry damage but weaker on total damage
++all of these products worked to some extent, but this does not get at how these compounds are working, which is important to tease out so we know how to optimize the performance

**Spray coverage 2007 with Japanese beetle using contact poisons:**

==Cannon: reduce water and you lose activity
==this pattern held with the VMC
==Airblast was much more restrictive (only one row on each side of the sprayer had good JB activity)
==we have plenty of evidence that as the tools change, not only does the timing change, but how we apply these compounds needs to change as well.

**Fruitworm management program comparison (RI)**

++In general the growers followed the plan to compare a Confirm/Guthion program with a Confirm/Asana program and an Intrepid/Delegate/Assail program.
++all applications were by ground
++all three programs had statistically equal control of fruitworm
++none of the fruit that were collected reared out live hibernaculae (so all the programs worked well to stop the fruitworms)

RI visited 32 commercial fields in June and July and took samples to get an overview of CBFW pest pressure and control:

++when Imidan went on late, the grower missed his control window and infestation was high
++ Late Imidan again shows up in larvae in the clusters data
++When applied on time, Imidan and other insecticides worked very well
Misc. discussion:
**DT:** several people want to understand the GDD details (egg-laying and GDD)
**RI:** should we have more of the same in 2009? Something different?
**DT:** 12 oz vs. 16 oz rates for Intrepid?
**RI:** we have data that 12 oz was very good
**CG:** CFW vs. CBFW?
**RI:** some reports with problems with CFW
**DT:** in 2008 we did well with CBFW but missed CFW (there were a lot of farms with some CFW infestation after bloom); CFW biofix was 6 days prior to CBFW biofix; lots of CFW first timing sprays went on, but growers were prevented from getting on the second spray timing due to poor spring weather
**RI:** grower was reluctant to put on a new spray right after putting on a spray (because of warm weather and quick berry growth)
**AT:** noticed more CFW in previous years; this year put on Intrepid a bit earlier and also used Guthion and seemed to have excellent results
**BC:** with newer products you may see some single berry damage but the fruitworm actually dies in the berry
**JW:** with good timing you can get the ingestion when the fruitworm emerges from the egg instead of when they exit the berry but you have to get good coverage
**DT:** found several fields with single berry damage but less than 10% of berries had a worm; also saw eggs that hatched where the larva burrowed straight down and never exited the egg to the top
**BD:** brings up need to identify ovicidal compounds
**CG:** we need to identify fruitworm behavior that can be targeted by specific insecticides

Education/Extension Activity 2008: (RI)
**Had successful extension meetings during the season at Cornerston Ag in Van Buren County and at Carini Farms in Ottawa County (having a barbeque helped) with organization by various members of the blueberry team

**Blueberry PMSP meeting was held in the summer of 2008, leading to a new set of priorities for research, extension, and regulatory issues. This is now posted online.

**Weekly IPM update**
++Paul Jenkins has ~230 people on his email list that have subscribed to the Update
++posted online as well (3107 visits in 2008)
++DT:** newsletter comments: make it more predictive and less reportive in nature (“in 6 days we expect...”); having previous year GDDs in the report so you can compare; really only need the previous year as blueberry growers don’t remember past the previous year

**Extension of research is important**
++many growers will need education on implementing a GDD model
++JW:** maybe a place to have a spring meeting on GDD for blueberry pests?; there’s a comfort gap with these models
++RI:** consultants are very important with this education as well (and they would be important to have at this spring meeting)
++CG:** if we want to implement this model we need to educate people: there’s a necessity to have some way to collect weather data. We could modify the 6-week training program so that we can do it in two days (to make it easier for growers to attend).
++JW: this would allow for a separate full day for GDD training
++CH: tree fruit growers have been doing this for years; maybe take some of the codling moth training info. to help train blueberry growers
++JW: half day, full day?
++CH: half day should be enough; Feb./March is a good time (mid-March would be the approximate cutoff)
++BF: mid-March is the cutoff; 2 half days is better than one full day (for growers who can’t make it to one)
++RI: where to hold it?
++BF: depends on the time of year (more willing to travel in better weather)
++CG: central location is better

USDA-NASS survey:
**EPA wanted data from across the industry (with regards to Guthion)
**NASS has had to stop their survey because of funding limitation
**Over 200 surveys filled out in 2008 regarding the 2007 season’s pesticide application patterns

**80% of Guthion applied was targeting fruitworms
** ~20% of Guthion was applied by air
**RI: what do you think of these results?
**DT: a bit surprised at the low aerial Guthion
**DT, JW, BC: 2007 was a drier year
**BC: 2008 results would probably be very different given the rainy spring
**RI: when it was estimated in 2008, aerial application was closer to 3,000 acres (instead of 1,860)
**LB: surprised at the higher acreage for some of the other compounds
**JW: eliminating the aerial application for Guthion will hurt the smaller grower more than the larger grower
**RI: we may be able to go back to the NASS data and look at small vs. larger grower to try to get at this question
**JW: almost 20% of growers are not certified for pesticide application
**JW: survey topic is linked with the Calypso stall in registration; if EPA doesn’t have data they’re going to use the worst case scenario when establishing the risk cup; at the meeting with the EPA he voiced frustration at stopping the NASS survey (and getting good data) at the same time as demanding good data with their risk cup assessments

2009 Priorities
RI: what should we focus on in 2009?

Research priorities (from 2008)
1. Degree day model for CFW and CBFW
2. Efficacy of new chemicals for CFW and CBFW (aerial and ground)
3. Importance of coverage for efficacy
4. Effectiveness of Delegate for CFW and CBFW control
5. Ensure studies address CFW control in addition to CBFW
6. Testing programs on-farm to see which is most effective
7. Performance of Intrepid against CFW and CBFW on-farm
8. Aerial Guthion versus aerial Asana
9. Which programs have a greater risk of secondary pests becoming a problem?
10. Concentration vs. control (related to aerial application)

-LB: a bit more on CFW and its control; he’d like to put this priority higher up on the list without bumping down any of the current priorities
-AT: more on #9 and the secondary pests
-RI: no secondary pest outbreaks showed up this year in the fields we sampled for this project, but we have seen more secondary pests (scale for example). Not enough experience yet to know why scale populations are increasing.
-CH: continue doing reduced risk programs on farms for multiple years to see whether secondary pests are showing up

Education/Extension priorities (from 2008):
   1. Degree days and how to use them for insect management
   2. Update the Blueberry Pest Management Strategic Plan
   3. June on-farm IPM meetings to update growers on insect management options

-RI: #2 was done this past year and won’t need to be done for a while
-no additional comments

Regulatory priorities:
   1. Need Maximum Residue Limits for other (newer) compounds in export markets
   2. Experimental Use Permits for most promising insecticides to learn about performance
   3. Survey of current Guthion use patterns in Michigan blueberries (used by many small growers, so number of acres doesn’t tell the whole story)
   4. Expedited labeling of Intrepid for 2008 season

-#3 and #4 were done this past year
-JW: MRL activities have been getting high attention
-JW: We should highlight the aerial aspect, especially with regards to the small/large grower aspect of the problem
-RI (with general agreement): should we add a point to the regulatory priorities list on extending the aerial Guthion deadline to the end of the phaseout period?
-RI: during the summer EPA visit at a blueberry farm RI got the same impression that the EPA is potentially looking for the Task Force to come back to them regarding aerial Guthion
-CG: should get data on aerial applications and growers not being certified to spray; these are the people who are going to suffer
-RI: discussed EUP priority from Feb 2008 meeting, but this was not needed due to rapid registrations before the 2008 season
-BD: Bayer’s stance on Exp. Use. permits is that it takes away from EPA’s time on getting regular labels

Meeting adjourned at 11.16 am.