

BIOTIC DAMAGES IN SPAIN

SPAIN **620** Level I plots
 54 Level II plots

Field Team: 2 Forest Engineers
specifically trained in
identification of damaging
agents

Reports: every year reports are
produced at a national level
using Level I & II results in
order to give a general look
about main damages found
during the assessment.

Reference of main damages and
area where were founded



BIOTIC DAMAGES TEST PHASE

APRIL 2003

Field team leaders + Level I and II coordinators



Study carefully the draft guidelines and make suggestions in order to converge:

- ❖ PROPOSAL BY BD GROUP (symptoms + agents)
- ❖ ROUTINE OF ASSESSMENTS AND SPECIFIC DAMAGES FOUND (ACCORDING EXPERIENCE OF FIELD TEAMS)



END OF APRIL 2003

First contributions were sent to the Biotic Damages Group
Later on, some comments and remarks to subsequent drafts

FIELD TEST PHASE

FIELD SEASON: IN SPAIN 15 JULY - 15 SEPTEMBER

ELEMENTS FOR DIAGNOSIS:

- Set containing all docs for the test phase + forms
- Forest Health Guide books
- EU form of year before
- Knowledge acquired during national training course on damages assessments



LEVEL I: 10% OF TOTAL NUMBER OF PLOTS (620) = 62 PLOTS

LEVEL II: TREES 1 TO 10 IN ALL THE LEVEL II PLOTS

RESULTS

A total of **62 Level I** and **53 Level II** forms were filled in order to test the new methodology, being the main agents detected the following ones:

Drought

Thaumetopoea phytocampa

Thyriopsis halepensis

Heat / sun scald

Gonypteris

Viscum album

Dryomyia lichtensteini

Rhynchaenus fagi



RESULTS (2)

Level I/ 60 valid plots

Stratified selection:

- 9 teams
- regions (%)

1440 assessed trees - 843 symptoms described and identified (SD)

Number of SD not identified variable in each plot (0-50%)

Depends on:

- knowledge about the tree specie
- knowledge about forest pathology



RESULTS (3)

0,58 % average SD / tree

Damage per tree 0 to 4 (most common 1 to 2).....ANALYSIS IN PROGRESS

MAIN IDENTIFIED DAMAGES:

TOTAL	843	100 %
drought	193	22.89
pine processionary	72	8.54
<i>Thyriopsis halepensis</i>	51	6.05
heat scald / <i>Gonypterus</i>	48	5.69

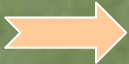


RESULTS (4)

- higher weight *all year* symptoms (Viscum, Galls, Pine processionary)
- Idem: *all year* damages (Gonypterus)
- Idem: late spring-summer agents (heat wave, drought, Rhynchaenus...)
- Scolytid damages not well represented (*spatial problem*)
- Early spring defoliators not well represented: Lymantria dispar (*temporal problem*)



SOME REMARKS

- ❖ SYMPTOMS CLASSIFICATION SHOULD BE DONE ONLY IN THE CASE THE OBSERVER IS NOT ABLE TO IDENTIFY THE CAUSAL AGENT.
- ❖ CAUSAL AGENTS TABLES SHOULD BE OPEN TO PERIODIC REVIEWS AND UPDATES IN ORDER TO HAVE THE OPPORTUNITY TO COMPLETE THEM WITH THE LOCAL DAMAGING AGENTS (¿LOCAL COMPLEMENTARY TABLES?)
- ❖ INSTEAD OF "NAME OF SPECIES" SHOULD BE USED "NAME OF THE AGENTS" (in order to consider not only the biotic damages).
- ❖ IT SEEMS TO BE USEFUL TO FILL ALL THE FIELDS ALSO IN LEVEL I (SPECIALLY THE AGENT) IN ORDER TO HAVE ALL THE POSSIBLE AVAILABLE INFORMATION AND NOT JUST THE COMPULSORY INFO (MAKING IT OPTIONAL MAY INVOLVE NOT EVEN TRYING IT...).  SPECIFIC TRAINING FOR THE CREW TEAM
- ❖ FOLLOWING THE PROPOSED SUBMANUAL THERE ARE SOME FIELDS THAT SHOULD BE LEFT BLANK. WE SUGGEST TO LEAVE THE CELL BLANK ONLY WHEN THERE IS NOT REALLY NEED TO FILL IT AND USE A SYMBOL (WHATEVER) FOR THE CASE THE CODE DOES NOT EXIST.



COMMENTS TO TEST PHASE

All field team leaders were invited to report about the main problems detected during the development of the test phase

MAIN CONCLUSION:

New assessments are **QUITE POSITIVE** because of: clear advantage of more information given in Level I and II and homogenization of proceedings used for both Levels, **BUT**

applying the new methodology is also a time consuming task and it involves a certain modification of field team schedules (about + 30 %)



❖ THE PROBLEM OF ADDITIONAL TIME CONSUMPTION WOULD BE AT LEAST REDUCED IF WE COULD ANYWAY INTEGRATE THE NEW PARAMETERS INTO ANY OF THE EXISTING FORMS ALREADY USED IN LEVEL II (TC1 OR TC2), INSTEAD OF FILLING A NEW FORM.



❖ IF WE HAVE DECIDED NOT TO QUANTIFY THE DAMAGES AS IMPACT ON DEFOLIATION (FOR THE MOMENT) THEN WHY DO WE GIVE A % EXTENT IN THE AFFECTED PART LEAVES/NEEDLES TO AN AGENT THAT HAS BEEN IDENTIFIED IN OTHER PART (EXAMPLE BRANCHES). WOULDN'T BE ABOUT THE SAME AS EXPRESSING THE DAMAGE CAUSED BY THE AGENT AS A % OF CONTRIBUTION TO DEFOLIATION?

❖ IT WOULD BE INTERESTING TO ADD A CATEGORY "OTHERS" FOR ALL THE TYPE OF AGENTS

❖ WE HAVE FOUND THE NECESSITY TO ADD A CODE IN THE SYMPTOMS TABLE IN ORDER TO SPECIFY THAT A TREE IS DEAD

❖ SOME NEW AGENTS HAVE BEEN IDENTIFIED DURING THE FIELD TEST PHASE, SO WE THINK THE TABLE SHOULD BE UPDATED REGULARLY (FOR EXAMPLE ONCE A YEAR AFTER THE FIELD SEASON)

LAST VERSION (ADOPTED BY 20TH TASK FORCE)

- ❖ **AGREEMENT WITH THE FINAL WORDING OF THE MANUAL AND WITH THE CHANGES THAT HAVE BEEN INCLUDED**
- ❖ **IT WILL TAKE SOME TIME FOR THE FIELD TEAMS TO GET USED TO THE NEW METHODOLOGY (DEVELOPMENT OF QA/QC IN THE FUTURE)**



WORKS FORESEEN FOR SUMMER 2004

- ❖ **TRAINING OF THE FIELD TEAMS IN DAMAGE ASSESSMENTS FOLLOWING THE NEW METHODOLOGY. SPECIFIC COURSE IN BIOTIC DAMAGES SYMPTOMS**

- ❖ **CONTINUATION OF THE TEST PHASE TESTING NEW METHODOLOGY IN:**

LEVEL I: 10% OF THE LEVEL I PLOTS: 62

LEVEL II: ALL INTENSIVELY MONITORED LEVEL II PLOTS: 13

- ❖ **SUBMISSION OF UPDATES TO THE LIST OF CAUSAL AGENTS, IF NECESSARY.**

