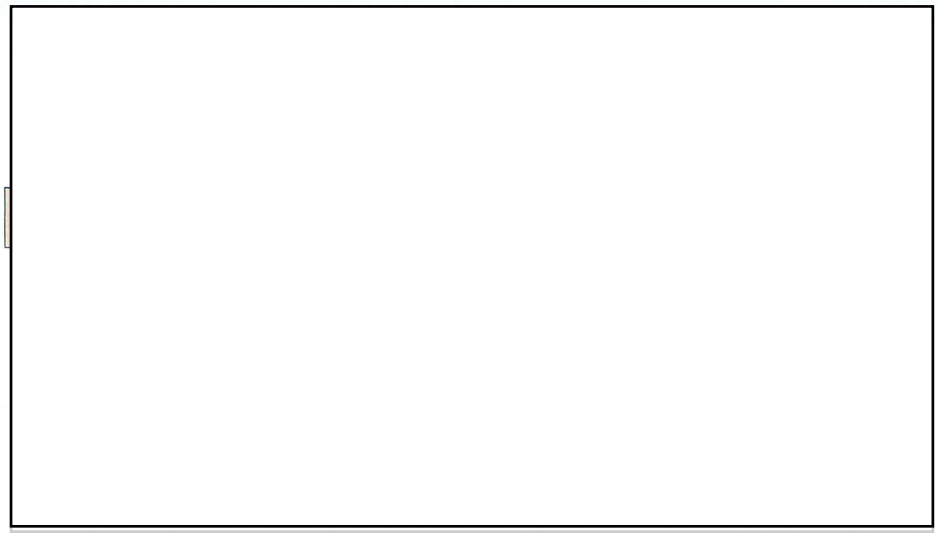
PARTIE 1 : CHARANÇON ROUGE DU PALMIER / RED PALM WEEVIL / *Rhynchophorus ferrugineus*

SOMMAIRE
N° SPECIAL – JANVIER 2013

PARTIE 2 : PAPILLON PALMIVORE / CASTNIID PALM BORER / *Paysandisia archon*

PARTIE 3 : REFERENCES UTILES POUR LES DEUX BIOAGRESSEURS / *USEFUL REFERENCES FOR BOTH PESTS*



PARTIE 1 : CHARANÇON ROUGE DU PALMIER / RED PALM WEEVIL/ *Rhynchophorus ferrugineus*

I. SITUATION / *SITUATION*

Cette partie liste des publications sur les analyses de risques ayant porté sur le ravageur ainsi que sur ses récentes introductions et sa progression dans certains pays.

This section is about risks analysis on the pests and their introduction in some countries.

COBOS SUÁREZ, J. M., and others. 2011. **Evolution of red palm weevil in the European Union and Regulatory Standards.** Phytoma España. 226: 95-96. Available at: http://agris.fao.org/agris-search/search/display.do?f=2011/ES/ES1103.xml;ES2011000645

CONTI, F., TAMBURINO, V., RACITI, E., SESTO, F., BRUNELLI, A., and others. 2008. **Red palm weevil *Rhynchophorus ferrugineus* in Eastern Sicily: monitoring and control strategies.** In *Giornate Fitopatologiche 2008, Cervia (RA), 12-14 marzo 2008, Volume 1.*, p. 303–304. Available at: http://www.cabdirect.org/abstracts/20083204716.html

FERRY, M., and others. 2010. **The red palm weevil in California.** Palms. 54 (4):203. Available at: http://www.cabdirect.org/abstracts/20113016881.html

JOSE, F., ARIVUDAINAMBI, S., JUSTIN, C. G. L., and others. 2008. **Occurrence of red palm weevil *Rhynchophorus ferrugineus* oliver (Curculionidae: Coleoptera) on coconut in Tamil Nadu, India.** Plant Archives. 8:689–692.

JU, R., LI, Y., WANG, F., DU, Y., and ZHANG, D. 2008. **Prediction of Suitable Distributions of Red Palm Weevil *Rhyncophorus ferrugineuss* Fabriciu (Coleoptera: Curculionidae) in China with Analysis of Bio-Climatic Matching.** Scientia Agricultura Sinica. 8:016.

KEHAT, M. 1999. **Threat to date palms in Israel, Jordan and the Palestinian Authority by the red palm weevil, *Rhynchophorus ferrugineus*.** Phytoparasitica. 27:241–242.

MILEK, T. M., ŠIMALA, M., and others. 2011. **First record of [*Rhynchophorus ferrugineus* (Olivier, 1790)]-red palm weevil in Croatia.** Glasilo Biljne Zaštite. 11:397–406.

ROCHAT, D., CHAPIN E., FERRY, M., AVAND-FAGHIH, A., BRUN, L. 2006. **Le charançon, rouge du palmier dans le bassin méditerranéen.** In *AFPP–1ère conférence internationale sur l'entretien des espaces verts, jardins, gazons, forets, zones aquatiques et autres zones non agricoles*, Avignon–11 et 12 octobre 2006.

RODA, A., KAIRO, M., DAMIAN, T., FRANKEN, F., HEIDWEILLER, K., JOHANNS, C., et al. 2011. **Red palm weevil (*Rhynchophorus ferrugineus*), an invasive pest recently found in the Caribbean that threatens the region.** EPPO Bulletin. 41:116–121.

RUI-TING, J., and AJLAN, A. and others. 2011. **Establishment and Potential Risks of a New Invasive Pest, Red Palm Weevil *Rhynchophorus ferrugineus* in China.** Arab Journal of Plant Protection. 29:122–130. Available at: http://www.asplantprotection.org/PDF/AJPP/29-1-2011/122-130.pdf

SOROKER, V., BLUMBERG, D., HABERMAN, A., HAMBURGER-RISHARD, M., RENEH, S., TALEBAEV, S., et al. 2005. **Current status of red palm weevil infestation in date palm plantations in Israel.** Phytoparasitica. 33:97–106.

WANG, L., CHEN, Z., QIAN, Z., SHE, D., MA, J., ZHANG, J., et al. 2008. ***Rhynchophorus ferrugineus*, a new Record of Curculionidae in Zhejiang.** Journal of Zhejiang Forestry Science and Technology. 4:019.

YOSHITAKE, H., MASAOKA, K., SATO, S., NAKAJIMA, A., KAMITANI, S., YUKAWA, J., et al. 2001. Occurrence of *Rhynchophorus ferrugineus* (Coleoptera: Dryophthoridae) on Nokonoshima Island, southern Japan, and its possible invasion further north. In *Proceedings-association of plant protection Kyushu*, p. 145–150. Available at: http://sciencelinks.jp/j-east/article/200207/000020020702A0066216.php

II. TRAITS BIOLOGIQUES ET ECOLOGIQUES / *BIOLOGICAL AND ECOLOGICAL TRAITS*

Cette partie traite des caractéristiques biologiques et écologiques du ravageur. Les plantes hôtes et conditions d'élevage constituent des sous-parties spécifiques.

This section is about biological and ecological features of the pest. Hosts plants and rearing conditions are specific parts.

ASPECTS GÉNÉRAUX / *GENERAL ASPECTS*

ABE, F., HATA, K., and SONE, K. 2009. Life History of the Red Palm Weevil, *Rhynchophorus ferrugineus* (Coleoptera: Dryophtoridae), in Southern Japan. Florida Entomologist. 92:421–425 .

ABE, F., OHKUSU, M., KUBO, T., KAWAMOTO, S., SONE, K., and HATA, K. 2010. Isolation of yeasts from palm tissues damaged by the red palm weevil and their possible effect on the weevil overwintering. Mycoscience. 51:215–223.

ABRAHAM, V. A., and others. 1971. Note on an effective method of preventing entry by red-weevil, *Rhynchophorus ferrugineus Fabricius* (Curculionidae: Coleoptera), into the stem of coconut palm through cut petioles. Indian Journal of Agricultural Sciences. 41:1130–1131.

AL-AYEDH, H. Y., and RASOOL, K. G. 2009. Sex ratio and the role of mild relative humidity in mating behaviour of red date palm weevil *Rhynchophorus ferrugineus* Oliv.(Coleoptera: Curculionidae) gamma-irradiated adults. Journal of Applied Entomology. 134:157–162.

ALKHAZA, M. H., YOUSSEF, L. A., ABDEL-WAHAED, M. S., KASSAB, A. S., and SALEH, M. M. E. 2009. Factors affecting infestation pattern of the red palm weevil, *Rhynchophorus ferrugineus* oliv. in date palm farms in qatif, saudi arabia. Arab Univ. J. Agrie. SeL. 17:177–183

AVAND-FAGHIH, A. 2004. Identification et Application Agronomique de Synergistes Végétaux de la Phéromone du Charançon *Rhynchophorus ferrugineus* (Olivier) 1790. [Thèse]. Available at: http://pastel.archives-ouvertes.fr/pastel-00000692

BARRANCO, P., MARTIN, M. M., DE LA PENA, J., RIVAS, P., and CABELLO, T. 1999. Estadios postembrionarios de *Rhynchophorus ferrugineus* (Olivier, 1870) (Coleoptera, Curculionidae) [Etats postembyonnaires de *Rhynchophorus ferrugineus* (Olivier, 1870) (Coleoptera, Curculionidae)]. In Almeria. 65 - Sesion 2: 185.

DEMBILIO, Ó., JACAS, J. A., and others. 2011. Basic bio-ecological parameters of the invasive Red Palm Weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae), in *Phoenix canariensis* under Mediterranean climate. Bulletin of entomological research. 101:153.

DEMBILIO, Ó., TAPIA, G. V., TÉLLEZ, M. M., and JACAS, J. A. 2012. Lower temperature thresholds for oviposition and egg hatching of the Red Palm Weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae), in a Mediterranean climate. Bulletin of entomological research. 102:97.

EL-EZABY, F., and others. 1997. A biological in-vitro study on the red Indian date palm weevil. Arab Journal of Plant Protection. 15:84–87.

FALEIRO, J., ASHOK KUMAR, J., and RANGNEKAR, P. 2002. Spatial distribution of red palm weevil *Rhynchophorus ferrugineus* Oliv. (Coleoptera: Curculionidae) in coconut plantations. Crop Protection. 21:171–176.

FALEIRO, J. R., RANGNEKAR, P. A., and SATARKAR, V. R. 2003. Age and fecundity of female red palm weevils *Rhynchophorus ferrugineus* (Olivier) (Coleoptera: Rhynchophoridae) captured by pheromone traps in coconut plantations of India. Crop Protection. 22:999–1002.

GADELHAK, G. G., and ENAN, M. R. 2005. Genetic diversity among populations of red palm weevil, *Rhynchophorus ferrugineus* Olivier (Coleoptera: Curculionidae), determined by random amplified polymorphic DNApolymerase chain reaction (RAPD-PCR). Int. J. Agric. Biol. 7:395–399.

GUNAWARDENA, N. E. 1994. Steam volatiles of coconut bark: chemical investigations and electroantennogram responses of the coconut pest, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae). Journal of the National Science Council of Sri Lanka. 22:231–238.

JACAS, J. A., DEMBILIO, Ó., and LLÁCER, E. 2011. Research activities focused on management of red palm weevil at the UJI-IVIA Associated Unit (Region of Valencia, Spain). EPPO Bulletin. 41:122–127.

JAYA, S., SURESH, T., SOBHITHA-RANI, R. S., SREEKUMAR, S., and others. 2000. Evidence of seven larval instars in the red palm weevil, *Rhynchophorus ferrugineus* Oliv. reared on sugarcane. Journal of Entomological Research. 24:27–31.

KAAKEH, W. 2005. Longevity, fecundity, and fertility of the red palm weevil, *Rynchophorus ferrugineus* Olivier (Coleoptera: Curculionidae) on natural and artificial diets. Emirates Journal of Food and Agriculture. 17 (1): 23-33. Available at: http://ejfa.info/index.php/ejfa/article/viewArticle/5045

KHIYAMI, M., and ALYAMANI, E. 2010. Aerobic and facultative anaerobic bacteria from gut of red palm weevil (*Rhynchophorus ferrugineus*). African Journal of Biotechnology. 7 (10): 1432-1437. Available at: http://www.ajol.info/index.php/ajb/article/view/58690

LI, L., QIN, W. Q., MA, Z. L., YAN, W., HUANG, S. C., and PENG, Z. Q. 2010. Effect of temperature on the population growth of *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) on sugarcane. Environmental entomology. 39:999–1003.

MESALLAM, T., SALEH, M. R. A., IBRAHEM, S. S. M., and EL-SEBAY, Y. M. A. 2009. Some biological aspects of the red palm weevil, *Rhynchophorus ferrugineus* (oliver) as influenced by rearing on certain palm varieties, temperature and relative humidity. Zagazig Journal of Agricultural Research. 36 (6): 1315-1339. Available at: http://agris.fao.org/agris-search/search/display.do?f=2011/EG/EG1101.xml;EG2010000304

MURPHY, S. T., BRISCOE, B. R., and others. 1999. The red palm weevil as an alien invasive: biology and the prospects for biological control as a component of IPM. Biocontrol News and Information. 20:35–46.

MUTHIAH, C., NAIR, C. P. R., and others. 2006. Bionomics and management of red palm weevil on coconut. Indian Coconut Journal. 37:12–16.

PEREZ, A. L., HALLETT, R. H., GRIES, R., GRIES, G., CAMERON OEHLSCHLAGER, A., and BORDEN, J. H. 1996. Pheromone chirality of asian palm weevils, *Rhynchophorus ferrugineus* (Oliv.) and *R. vulneratus* (Panz.)(Coleoptera: Curculionidae). Journal of chemical ecology. 22:357–368.

RAHALKAR, G. W., MISTRY, K. B., HARWALKAR, M. R., BHARATHAN, K. G., and GOPAL-AYENGAR, A. R. 1971. Labeling adults of red palm weevil (*Rhynchophorus ferrugineus*) with cerium for detection by neutron activation. Ecology. 52 (1):186–188.

RUITING, J., FENG, W., YUYU, X., YUEZHONG, L., YUZHOU, D., and others. 2010. Cold hardiness of the red palm weevil, *Rhynchophorus ferrugineus* (Olivier)(Coleoptera: Curculionidae) in Shanghai. Acta Entomologica Sinica. 53:226–232.

SALAMA, H. S., HAMDY, M. K., and MAGD EL-DIN, M. 2002. **The thermal constant for timing the emergence of the red palm weevil, *Rhynchophorus ferrugineus* (Oliv.)(Coleoptera, Curculionidae).** Anzeiger für Schädlingskunde. 75:26–29.

SALAMA, H. S., and SAKER, M. M. 2002. **DNA fingerprints of three different forms of the red palm weevil collected from Egyptian date palm orchards.** Archives of Phytopathology and Plant Protection. 35:299–306.

SALAMA, H. S., ZAKI, F. N., and ABDEL-RAZEK, A. S. 2009. **Ecological and biological studies on the red palm weevil *Rhynchophorus ferrugineus* (Olivier).** Archives of Phytopathology and Plant Protection. 42:392–399.

PLANTES HÔTES / *HOST PLANTS*

AL-AYEDH, H. 2008. **Evaluation of date palm cultivars for rearing the red date palm weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae).** Florida entomologist. 91:353–358.

BARRANCO, P., PEÑA, J. A., MARTÍN, M. M., CABELLO, T., and others. 2000. **Host rank for *Rhynchophorus ferrugineus* (Olivier, 1790) and host diameter.(Coleoptera: Curculionidae).** Boletín de Sanidad Vegetal, Plagas. 26:73–78.

DEMBILIO, O., JACAS, J. A., and LLÁCER, E. 2009. **Are the palms *Washingtonia filifera* and *Chamaerops humilis* suitable hosts for the red palm weevil, *Rhynchophorus ferrugineus* (Col. Curculionidae)?** Journal of Applied Entomology. 133:565–567.

FARAZMAND, H. 2002. **Investigation on the reasons of food preference of red palm weevil, *Rhynchophorus ferrugineus* (oliv.).** Applied entomology and Phytopathology. 70:49–62.

JU, R. T., WANG, F., WAN, F. H., and LI, B. 2011. **Effect of host plants on development and reproduction of *Rhynchophorus ferrugineus* (Olivier)(Coleoptera: Curculionidae).** Journal of Pest Science. 84:33–39.

KONTODIMAS, D. C., MILONAS, P., VASSILIOU, V., THYMAKIS, N., and ECONOMOU, D. 2006. **The occurrence of *Rhynchophorus ferrugineus* in Greece and Cyprus and the risk against the native greek palm tree *Phoenix theophrasti*.** Entomol Hellen. 16:11–15.

LONGO, S., ANDERSON, P. J., SMITH, T. R., STANLEY, J. D., INSERRA, R. N., and others. 2011. **New palm hosts for the red palm weevil, *Rhynchophorus ferrugineus*, in Sicily.** Palms. 55:15–20.

ELEVAGE / *REARING*

FENG, W., RUITING, J., YUEZHONG, L., YING, X., XINGZHEN, C., HUI, Z., et al. 2009. **Technique for rearing *Rhynchophorus ferrugineus* on sugarcane.** Chinese Bulletin of Entomology. 46:967–969.

MERCER, C. W. L., and others. 1994. **Sago grub production in Labu swamp near Lae, Papua New Guinea.** Klinkii. 5:30–34.

SALAMA, H. S., and ABDEL-RAZEK, A. S. 2002. **Development of the red palm weevil, *Rhynchophorus ferrugineus* (Olivier),(Coleoptera, Curculionidae) on natural and synthetic diets.** Anzeiger für Schädlingskunde. 75:137–139.

SHAHINA, F., SALMA, J., MEHREEN, G., BHATTI, M. I., and TABASSUM, K. A. 2009. **Rearing of *Rhynchophorus ferrugineus* in laboratory and field conditions for carrying out various efficacy studies using EPNs.** Pakistan Journal of Nematology. 27:219–228.

III. DETECTION / *DETECTION*

Cette partie traite des techniques de détection.

This section deals with detection techniques.

GUTIÉRREZ, A., RUIZ, V., MOLTÓ, E., TAPIA, G., and DEL MAR TÉLLEZ, M. 2010. **Development of a bioacoustic sensor for the early detection of Red Palm Weevil (*Rhynchophorus ferrugineus* Olivier).** Crop Protection. 29:671–676.

HUSSEIN, W. B., HUSSEIN, M. A., and BECKER, T. 2009. **Application of the signal processing technology in the detection of red palm weevil.** In *17th European Signal Processing Conference (EUSIPCO 2009) Glasgow, Scotland*. Available at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.184.7088&rep=rep1&type=pdf

HUSSEIN, W. B., HUSSEIN, M. A., and BECKER, T. 2010. **Detection of the red palm weevil *Rhynchophorus ferrugineus* using its bioacoustics features.** Bioacoustics. 19:177–194.

MANACHINI, B., ARIZZA, V., PARRINELLO, D., and PARRINELLO, N. 2011. **Hemocytes of *Rhynchophorus ferrugineus* (Olivier) (Coleoptera: Curculionidae) and their response to Saccharomyces cerevisiae and Bacillus thuringiensis.** Journal of Invertebrate Pathology. 106:360–365.

PINHAS, J., SOROKER, V., HETZRONI, A., MIZRACH, A., TEICHER, M., and GOLDBERGER, J. 2008. **Automatic acoustic detection of the red palm weevil.** Computers and Electronics in Agriculture. 63:131–139.

POTAMITIS, I., GANCHEV, T., and KONTODIMAS, D. 2009. **On automatic bioacoustic detection of pests: the cases of *Rhynchophorus ferrugineus* and Sitophilus oryzae.** Journal of economic entomology. 102:1681–1690.

RAHALKAR, G. W., MISTRY, K. B., HARWALKAR, M. R., BHARATHAN, K. G., and GOPAL-AYENGAR, A. R. 1971. **Labeling adults of red palm weevil (*Rhynchophorus ferrugineus*) with cerium for detection by neutron activation.** Ecology. 52 (1):186–188.

SIRIWARDENA, K. A. P., FERNANDO, L. C. P., NANAYAKKARA, N., PERERA, K. F. G., KUMARA, A. D. N. T., and NANAYAKKARA, T. 2010. **Portable acoustic device for detection of coconut palms infested by *Rynchophorus ferrugineus* (Coleoptera: Curculionidae).** Crop Protection. 29:25–29.

TOFAILLI, K. 2010. **The early detection of red palm weevil: a new method.** In *IV International Date Palm Conference 882*, p. 441–449. Available at: http://www.actahort.org/books/882/882_50.htm

IV. PIEGEAGE / *TRAPPING*

Cette partie traite des mécanismes et techniques de piégeage.

This section deals with trapping mechanisms and techniques.

ABBAS, M. S. T., HANOUNIK, S. B., SHAHDAD, A. S., and Al-BAGHAM, S. A. 2006. Aggregation pheromone traps, a major component of IPM strategy for the red palm weevil, *Rhynchophorus ferrugineus* in date palms (Coleoptera: Curculionidae). Journal of Pest Science. 79:69–73.

ABRAHAM, V. A., NAIR, S. S., NAIR, C. P. R., and others. 1999. A comparative study on the efficacy of pheromone lures in trapping red palm weevil, *Rhynchophorus ferrugineus* Oliv.(Coleoptera: Curculionidae) in coconut gardens. Indian Coconut Journal (Cochin). 30:1–2.

ABUAGLA, A. M., and AL-DEEB, M. A. 2012. Effect of bait quantity and trap color on the trapping efficacy of the pheromone trap for the red palm weevil, *Rhynchophorus ferrugineus*. Journal of Insect Science 12:120. Available at: http://insectscience.org/12.120/i1536-2442-12-120.pdf

AL-AJLAN, A. M., and ABDULSALAM, K. S. 2005. Efficacy of two pheromone types on red palm weevil, *Rhynchophorus ferrugineus* under Saudi Arabian conditions. Indian Journal of Plant Protection. 33:220–222.

ALFARO, C., VACAS, S., NAVARRO LLOPIS, V., and PRIMO, J. 2011. Application of semiochemicals in the management of *Rhynchophorus ferrugineus*. Design and development of a new trap for capturing adult. Phytoma España. (226): 24-28. Available at: http://agris.fao.org/agris-search/search/display.do?f=2011/ES/ES1103.xml;ES2011000636

AL-SAOUD, A. H. 2006. Control of red palm weevil *Rhynchophorous ferrugineus* Olivier (Coleoptera: Curculionidae) using aggregation pheromones. Damascus Univ. J. Agric. Sci. 22:147–164.

AL-SAOUD, A. H., AL-DEEB, M. A., and MURCHIE, A. K. 2010. Effect of color on the trapping effectiveness of red palm weevil pheromone traps. J. Entomol. 7:54–59.

EL-GARHY, M. E., and others. 1996. Field evaluation of the aggregation pheromone of the red palm weevil, *Rhynchophorus ferrugineus*, in Egypt. In *Brighton Crop Protection Conference: Pests & Diseases-1996: Volume 3: Proceedings of an International Conference, Brighton, UK, 18-21 November 1996.*, p. 1059–1064. Available at: http://www.cabdirect.org/abstracts/19971101097.html .

FALEIRO, J. R., AL-SHUAIBI, M. A., ABRAHAM, V. A., KUMAR, T. P., and others. 1999. A technique to assess the longevity of the pheromone (Ferrolure) used in trapping the date red palm weevil *Rhynchophorus ferrugineus* Oliv. Sultan Qaboos University Journal for Scientific Research-Agricultural Sciences. 4:5–9.

FALEIRO, J. R., CHELLAPAN, M., and others. 1999. Attraction of red palm weevil *Rhynchophorus ferrugineus* Oliv. to ferrugineol based pheromone lures in coconut gardens. Journal of Tropical Agriculture. 37:60–63.

FALEIRO, J. R., EL-SAAD, M. A., and AL-ABBAD, A. H. 2011. Pheromone trap density to mass trap *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae/Rhynchophoridae/Dryophthoridae) in date plantations of Saudi Arabia. International Journal of Tropical Insect Science. 31:75–77.

FALEIRO, J. R., RANGNEKAR, P. A., and SATARKAR, V. R. 2003. Age and fecundity of female red palm weevils *Rhynchophorus ferrugineus* (Olivier) (Coleoptera: Rhynchophoridae) captured by pheromone traps in coconut plantations of India. Crop Protection. 22:999–1002.

FALEIRO, J. R., SATARKAR, V. R., and others. 2005. Attraction of food baits for use in red palm weevil *Rhynchophorus ferrugineus* Olivier pheromone trap. Indian Journal of Plant Protection. 33:23–25.

FIABOE, K. K. M., MANKIN, R. W., RODA, A. L., KAIRO, M. T. K., and JOHANNS, C. 2011. Pheromone-Food-Bait Trap and Acoustic Surveys of *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) in Curacao. Florida Entomologist. 94:766–773.

GUARINO, S., BUE, P. L., PERI, E., and COLAZZA, S. 2011. Responses of *Rhynchophorus ferrugineus* adults to selected synthetic palm esters: electroantennographic studies and trap catches in an urban environment. Pest management science. 67:77–81.

HALLETT, R. H., OEHLSCHLAGER, A. C., and BORDEN, J. H. 1999. Pheromone trapping protocols for the Asian palm weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae). International Journal of pest management. 45:231–237.

KALLESHWARASWAMY, C. M., JAGADISH, P. S., and SWAMY, P. 2006. Standardization of food bait, height and colour of the trap for attracting red palm weevil, *Rhynchophorus ferrugineus* (Olivier) by synthetic pheromone lure. Annals of Plant Protection Sciences. 14:17–21.

MOHAMMADPOUR, K., and AVAND FAGHIH, A. 2008. Investigation on the possibility of co-mass trapping of the populations of red palm weevil, *Rhynchophorus ferrugineus* and date palm fruit stalk borer, oryctes elegans using pheromone traps. Applied entomology and phytopathology. 75 (2(84)):39-53. Available at: http://www.sid.ir/En/ViewPaper.asp?ID=119485&varStr=9;MOHAMMADPOUR%20K.,AVAND%20FAGHIH%20A.;APPLIED%20ENTOMOLOGY%20AND%20PHYTOPATHOLOGY;MARCH%202008;75;2%20(84);39;53

NEELAKANTHI E., G., and H.M.W.K.B., H. 1995. Enhancement of the activity of ferrugineol by N-Pentanol in an attractant baited trap for the coconut pest *Rhynchophorus ferrugineus* F. (Coleoptera: Curculionidae). J. Natn. Sci. Coun. Sri Lanka. 23:81–86. Available at: http://thakshana.nsf.ac.lk/pdf/JNSF1-25/JNSF23_2/JNSF23_2_81.pdf

OEHLSCHLAGER, A. C., and GONZALEZ, L. 2001. Advances in trapping & repellency of palm weevils. *In the second international conference on Date Palm, Abu Dhabi, United Arab Emirates*. 1: 358–365. Available at: http://www.dpfs.org/Conferences/2001_Date_Palms_Conference/Vol_1_Page_358_365.pdf

RAJAPAKSE, C. N. K., GUNAWARDENA, N. E., and PEREA, K. F. G. 1998. Pheromone baited trap for the management of red palm weevil, *Rhynchophorus ferrugineus* F.(Coleoptera: Curculionide) population in coconut plantation. Available at: http://dl.nsf.ac.lk/handle/1/7402

SANCHEZ, P., CERDA, H., CABRERA, A., CAETANO, F. H., MATERAN, M., SANCHEZ, F., et al. 1996. Secretory mechanisms for the male produced aggregation pheromone of the palm weevil *Rhynchophorus palmarum* L.(Coleoptera: Curculionidae). Journal of insect physiology. 42:1113–1119.

SANSANO JAVALOYES, M. P., GOMEZ VIVES, S., FERRY, M., and DÎAZ ESPEJO, G. 2008. Ensayos de campo para la mejora de la eficacia de las tramp as de captura de *Rhynchophorus ferrugineus*, Olivier (Coleoptera: Dryophthoridae), picudo rojo de la palmera [Essais au champ pour améliorer l'efficacité des dispositifs de piégeage de *Rhynchophorus ferrugineus*, Olivier (Coleoptera: Dryophthoridae), charançon rouge du palmier]. Bol. San. Veg. Plagas. 34:135–145

SAOUD, A. H. A. 2007. Importance of Date Fruit in Red Palm Weevil, *Rhynchophorus ferrugineus* Olivier (Coleoptera: Curculionidae) Aggregation Pheromone Traps. Acta Horticulturae. 736:405.

SOROKER, V., BLUMBERG, D., HABERMAN, A., HAMBURGER-RISHARD, M., RENEH, S., TALEBAEV, S., et al. 2005. Current status of red palm weevil infestation in date palm plantations in Israel. Phytoparasitica. 33:97–106.

VIDYASAGAR, P., and ALDOSARI, S. 2010. Role of food and Kairomone in trapping of adult weevils of Red Palm Weevil, *Rhynchophorus ferrugineus* in date palm orchards. Available at: http://eco.confex.com/eco/2010/preliminaryprogram/abstract_26824.htm

VIDYASAGAR, P., HAGI, M., ABOZUHAIRAH, R. A., AL-MOHANNA, O. E., AL-SAIHATI, A. A., and others. 2000. Impact of mass pheromone trapping on red palm weevil: adult population and infestation level in date palm gardens of Saudi Arabia. Planter. 76:347–355.

WEIQUAN, Q., ZILONG, M., DUOYANG, W., XIZHUO, C., YONGZHUANG, W., HUI, Z., et al. 2004. Trapping of red palm weevil with several attractants and monitoring of its population in the field. Chinese Journal of Tropical Crops. 25:42–46.

ZADA, A., SOROKER, V., HAREL, M., NAKACHE, J., and DUNKELBLUM, E. 2002. Quantitative GC analysis of secondary alcohol pheromones: determination of release rate of red palm weevil, *Rhynchophorus ferrugineus*, pheromone from lures. Journal of chemical ecology. 28:2299–2306.

ZEKİ, H., ÖZKAN, A., and others. 2009. The efficacy of" Rhyfer®" pheromone against Red Palm Weevil [*Rhynchophorus ferrugineus* (Olivier)(Col.: Curculionidae)] and adult flight activity in Antalya. Bitki Koruma Bülteni. 49:89–106.

V. LUTTE CHIMIQUE - INSECTICIDE DE SYNTHESE / *CHEMICAL CONTROL WITH SYNTHETIC INSECTICIDES*

Cette partie porte sur les travaux majeurs de recherche et d'expérimentation de solutions à partir d'insecticides de synthèse. Les références portant sur les expérimentations d'injections de produits phytosanitaires ont été regroupées dans la partie « Techniques d'application ».

This section deals with the mains research and experiments on chemical pesticides. References dealing with pesticides injections have been put together in the section "Application techniques".

A AL–SHAWAF, A. M., Al-SHAGAGH, A. A., Al-BAKSHI, M. M., Al-SAROJ, S. A., AL-BADR, S. M., AL-DANDAN, A. M., et al. 2010. Toxicity of Some Insecticides Against Red Palm Weevil, *Rhynchophorus ferrugineus*. Indian Journal of Plant Protection. 38:13–16 .

ABRAHAM, V. A., KOYA, K. M. A., KURIAN, C., and others. 1975. Evaluation of seven insecticides for control of red palm weevil *Rhynchophorus ferrugineus* Fabr. Journal of plantation Crops. 3:71–72.

AJLAN, A. M., SHAWIR, M. S., ABO-EL-SAAD, M. M., REZK, M. A., ABDULSLAM, K. S., and others. 2000. Laboratory evaluation of certain organophosphorus insecticides against the red palm weevil, *Rhynchophorus ferrugineus* (Olivier). Scientific Journal of King Faisal University (Basic and Applied Sciences). 1:En15–En34.

BARRANCO, P., PEÑA, J., MARTIN, M. M., CABELLO, T., and others. 1998. Efficiency of chemical control of the new palm pest *Rhynchophorus ferrugineus* (Olivier, 1790)(Col.: Curculionidae). Boletín de Sanidad Vegetal, Plagas. 24:301–306.

CABELLO, T., PEÑA, J. de la, BARRANCO, P., and BELDA, J. 1997. Laboratory evaluation of Imidacloprid and oxamyl against *Rhynchophorus ferrugineus*. Annals of Applied Biology. 130 Supplement

CONTI, F., TAMBURINO, V., RACITI, E., SESTO, F., BRUNELLI, A., and others. 2008. Red palm weevil *Rhynchophorus ferrugineus* in Eastern Sicily: monitoring and control strategies. In *Giornate Fitopatologiche 2008, Cervia (RA), 12-14 marzo 2008, Volume 1.*, p. 303–304. Available at: http://www.cabdirect.org/abstracts/20083204716.html

EL-SEBAEY, Y. .2004. Field evaluation of certain insecticides against red palms weevil *Rhynchophorus ferrugineus oliv.* (coleoptera; curculionidae) in Egypt.

EL-ZEMAITY, M. S., ABDEL-MEGEED, M. I., ABDUL-WAHED, M. S., and REDA, A. A. 2010. Factors Influencing the Effectiveness of Certain Novel Insecticides against Red Palm Weevil. In *IV International Date Palm Conference 882, p. 923–927*. Available at: http://www.actahort.org/books/882/882_107.htm

GHONEIM, K. S., AL-DALI, A. G., and ABDEL-GHAFFAR, A. A. 2003. Effectiveness of lufenuron (CGA-184699) and diofenolan (CGA-59205) on the general body metabolism of the red palm weevil, *Rhynchophorus ferrugineus* (Curculionidae: Coleoptera). Pakistan Journal of Biological Sciences. 6:1125–1129.

GHONEIM, K. S., BREAM, A. S., TANANI, M. A., and NASSAR, M. I. 2007. Efficacy of Lufenuron (CGA-184699) and Diofenolan (CGA-59205) on survival, growth and development of the red palm weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae). In *59th International Symposium on Crop Protection*, Available at: http://www.pubhort.org/datepalm/datepalm2/datepalm2_34.pdf

GHONEIM, K. S., BREAM, A. S., TANANI, M. A., and NASSAR, M. M. 2001. Effectiveness of IGRS (CGA-184699) and (CGA-259205) on the respiratory metabolism of the red palm weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae). Mededelingen (Rijksuniversiteit te Gent. Fakulteit van de Landbouwkundige en Toegepaste Biologische Wetenschappen). 66:413.

KAAKEH, W. 2006. **Toxicity of imidacloprid to developmental stages of *Rhynchophorus ferrugineus* (Curculionidae: Coleoptera): Laboratory and field tests.** Crop Protection. 25:432–439.

LLÁCER, E., DEMBILIO, O., and JACAS, J. A. 2010. **Evaluation of the Efficacy of an Insecticidal Paint Based on Chlorpyrifos and Pyriproxyfen in a Microencapsulated Formulation Against *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae).** Journal of economic entomology. 103:402–408.

LLÁCER, E., and JACAS, J. A. 2010. **Short communication: Efficacy of phosphine as a fumigant against *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) in palms.** Spanish journal of agricultural research. 8 (3):775–779.

MOHAMMADPOUR, K., ERFANIAN, R., and DEHVARI, M. 2005. **Evaluation of the Imidaclopride (Confidor SC350) on the control of red palm weevile, *Rhynchophorus ferrugineus* Oliv.(Col.: Curculionidae).** Available at: http://agris.fao.org/agris-search/search/display.do?f=2008/IR/IR0805.xml;IR2007000569

MUHAMMAD USMAN SHAR. 2012. **Red palm weevil (*Rhynchophorus ferrugineus* Olivier) infestation and its chemical control in Sindh province of Pakistan.** African Journal of Agricultural Research. 7 (11): 1666-1673. Available at: http://www.academicjournals.org/ajar/abstracts/abstracts/abstract2012/19%20Mar/Shar%20%20et%20al.htm

MUTHIAH, C., NAIR, C. P. R., and others. 2006. **Bionomics and management of red palm weevil on coconut.** Indian Coconut Journal. 37:12–16.

RAO, P. V. S., SUBRAMANIAM, T. R., ABRAHAM, E. V., and others. 1973. **Control of the red palm weevil on coconut.** Journal of Plantation Crops. 1:26–27.

RISEH, N. S., GHADAMYARI, M., MOTAMEDINIYA, B., and others. 2012. **Biochemical characterisation of alpha- and beta-glucosidases and alpha-and beta-galactosidases from red palm weevil, *Rhynchophorus ferrugineus* (Olivier)(Col.: Curculionide).** Plant Protection Science. 48:85–93.

SACCO, M., CANGELOSI, B., ARATO, E., LITTARDI, C., and PASINI, C. 2011. Valutazione dell' efficacia di alcuni mezzi di lotta a *Rhynchophorus ferrugineus* (Olivier) in condizioni sperimentali su palme *Phoenix canariensis* **[Evaluation de l'efficacité de certaines mesures de lutte contre *Rhynchophorus ferrugineus* (Olivier) en conditions expérimentales].** Ricerca. (4):90–98

SHAN-SHENG, O. U., and others. 2009. **Study on Control Effects of Different Medicament on *Rhynchophorus ferrugineus* Fabricius.** Journal of Anhui Agricultural Sciences. 36:062.

VI. LUTTE BIOLOGIQUE/ *BIOLOGICAL CONTROL*

Cette partie porte sur les travaux majeurs de recherche et d'expérimentation de solutions biologiques à partir de plusieurs types d'auxiliaires ou substances d'origine naturelle. Les références portant sur les expérimentations d'injections de spécialités biologiques ont été regroupées dans la partie « Techniques d'application ».

This section deals with the main research and experiments on biocontrol agents as well as botanicals. References dealing with injections or soil applications have been put together in the section "Application techniques".

NÉMATODES ENTOMOPATHOGÈNES / *ENTOMOPATHOGENOUS NEMATODES*

ABBAS, M. S. T., HANONIK, S. P., and others. 1999. **Pathogenicity of entomopathogenic nematodes to red palm weevil, *Rhynchophorus ferrugineus*.** International Journal of Nematology. 9:84–86.

ABBAS, M. S. T., SALEH, M. M. E., and AKIL, A. M. 2001. **Laboratory and field evaluation of the pathogenicity of entomopathogenic nematodes to the red palm weevil, *Rhynchophorus ferrugineus* (Oliv.)(Col.: Curculionidae).** Anzeiger für schädlingskunde. 74:167–168.

ATAKAN, E., ELEKCIOGLU, H., GOZEL, U., GUNES¸, C., and YUKSEL, O. 2009. **First report of *Heterorhabditis bacteriophora* (Poinar, 1975) (Nematoda: Heterorhabditidae) isolated from the red palm weevil, *Rhynchophorus ferrugineus* (Oliver, 1790) (Coleoptera: Curculionidae) in Turkey.** Bulletin OEPP/EPPO. 39 (2):189–193

BANU, J. G., RAJENDRAN, G., and SUBRAMANIAN, S. 2003. **Susceptibility of Red Weevil, *Rhynchophorus ferrugineus* Oliv to Entomopathogenic Nematodes.** Annals of Plant Protection Sciences. 11:104–106.

DEMBILIO, Ó., QUESADA-MORAGA, E., SANTIAGO-ÁLVAREZ, C., and JACAS, J. A. 2010. **Potential of an indigenous strain of the entomopathogenic fungus *Beauveria bassiana* as a biological control agent against the Red Palm Weevil, *Rhynchophorus ferrugineus*.** Journal of Invertebrate Pathology. 104:214–221.

ELAWAD, S. A., MOUSA, S. A., SHAHDAD, A. S., ALAWAASH, S. A., ALAMIRI, A. M. A., FIROZA, K., et al. 2007. **Potential of entomopathogenic nematodes against the Red Palm Weevil in United Arab Emirates.** In *Sixth National Nematological Conference in Pakistan and workshop on integrated nematode disease management (INDM) in some cereals, fruit and vegetables of Pakistan, Pakistan, 25-27 April 2006.*, p. 5–13. Available at: http://www.cabdirect.org/abstracts/20073043868.html

EL-BISHRY, M. H., EL-SEBAY, Y., AL-ELIMI, M. H., and others. 2000. **Impact of the environment in date palm infested with *Rhynchophorus ferrugineus* on five entomopathogenic nematodes (Rhabditida).** International Journal of Nematology. 10:75–80.

HANOUNIK, S. B., SALEH, M. M. E., ABUZUHAIRAH, R. A., ALHEJI, M., ALDHAHIR, H., ALJARASH, Z., et al. 2000. **Efficacy of entomopathogenic nematodes with antidesiccants in controlling the red palm weevil, *Rhynchophorus ferrugineus* on date palm trees.** International Journal of Nematology. 10:131–134.

LLÁCER, E., MARTÍNEZ DE ALTUBE, M. M., and JACAS, J. A. 2009. **Evaluation of the efficacy of *Steinernema carpocapsae* in a chitosan formulation against the red palm weevil, *Rhynchophorus ferrugineus*, in *Phoenix canariensis*.** BioControl. 54:559–565.

MONZER, A. E., and EL-RAHMAN, R. A. 2003. **Effect on *Heterorhabditis indica* of substances occurring in decomposing palm tissues infested by *Rhynchophorus ferrugineus*.** Nematology. 5:647–652.

MONZER, M. A., AL-ELIMI, M. H., and others. 2002. **Further investigation on the impact of the environment in date palm infested with *Rhynchophorus ferrugineus* on entomopathogenic nematodes: I. Preliminary identification of potent chemical volatiles.** Egyptian Journal of Biological Pest Control. 12:39–42.

SALAMA, H. S., and ABD-ELGAWAD, M. M. 2001. **Isolation of heterorhabditid nematodes from palm tree planted areas and their implications in the Red Palm Weevil control.** Anzeiger für Schädlingskunde. 74:43–45.

SALEH, M. M. E., ALHEJI, M., and others. 2003. **Biological control of red palm weevil with entomopathogenic nematodes in the eastern province of Saudi Arabia.** Egyptian Journal of Biological Pest Control. 13:55–59.

SALEH, M. M. E., HEGAZY, G., Salem, M., HANOUNIK, S. B., AL-MOHANNA, O., ALHEJI, M. A., et al. 2004. **Persistence of *Steinernema carpocapsae* (Nematoda: Steinernematidae) and *Beauveria bassiana* (Deuteromycotina: Hyphomycetes) in soil around date palm trunks and their effect on adults of *Rhynchophorus ferrugineus*.** In *Proceedings of the 1st Arab Conference for Applied Biological Pest Control, Cairo, Egypt, 5 to 7 April 2004*, p. 141–145. Available at: http://www.cabdirect.org/abstracts/20053186467.html

SALEH, M. M. E., ALHEJI, M. A., ALKHAZAL, M. H., ALFERDAN, H., and DARWISH, A. 2011. **Evaluation of *Steinernema sp.* SA a Native Isolate from Saudi Arabia for Controlling Adults of the Red Palm Weevil. *Rhynchophorus ferrugineus* (Oliver).** Egyptian Journal of Biological Pest Control. 21:277–282

SHAMSELDEAN, M. M., ATWA, A. A., and others. 2004. **Virulence of Egyptian steinernematid nematodes used against the red palm weevil, *Rhynchophorous ferrugineus* (Oliv.).** In *Proceedings of the 1st Arab Conference for Applied Biological Pest Control, Cairo, Egypt, 5 to 7 April 2004*, p. 135–140. Available at: http://www.cabdirect.org/abstracts/20053186466.html

TRIGGIANI, O., TARASCO, E., and others. 2011. **Evaluation of the effects of autochthonous and commercial isolates of Steinernematidae and Heterorhabditidae on *Rhynchophorus ferrugineus*.** Bulletin of Insectology. 64:175–180.

CHAMPIGNONS ENTOMOPATHOGÈNES / *ENTOMOPATHOGENOUS FUNGI*

ALDOSSARY, A. A., SHEHATA, S. T., HEGAZY, G., SALEM, M. A., FAIZA, M. A. M., and others. 2009. **Assessment of the entomopathogenic fungus *Beauveria bassiana* Saudi Arabian isolate (B-SA3) against the developmental stages of the red palm weevil, *Rhynchophorus ferrugineus* (Oliv.).** Arab Universities Journal of Agricultural Sciences. 17:227–237.

BESSE, S., CRABOS, L., and PANCHAUD, K. 2011. **Efficacité de 2 souches de *Beauveria bassiana* sur le charançon rouge du palmier, *Rhynchophorus ferrugineus*.** In *AFPP - neuvieme conference internationale sur les ravageurs en agriculture, Montpellier, 26 et 27 octobre 2011, p. 404-783*

DEADMAN, M. L., AZAM, K. M., RAVZI, S. A., and KAAKAH, W. 2001. **Preliminary investigations into the biological control of red palm weevil using *beauveria bassiana*.** In *The Second International Conference on Date Palms held at the United Arab Emirates University*, p. 25–27. Available at: http://www.dpfs.org/Conferences/2001_Date_Palms_Conference/Vol_1_Page_225_232.pdf

DEMBILIO, Ó., QUESADA-MORAGA, E., SANTIAGO-ÁLVAREZ, C., and JACAS, J. A. 2010. **Potential of an indigenous strain of the entomopathogenic fungus *Beauveria bassiana* as a biological control agent against the Red Palm Weevil, *Rhynchophorus ferrugineus*.** Journal of Invertebrate Pathology. 104:214–221.

EL-SUFTY, R., AL-AWASH, S. A., AL-BGHAM, S., SHAHDAD, A. S., AL-BATHRA, A. H., and others. 2009. **Pathogenicity of the fungs *Beauveria bassiana* (Bals.) Vuill to the red palm weevil, *Rhynchophorus ferrugineus* (Oliv.)(Col.: Curculionidae) under laboratory and field conditions.** Egyptian Journal of Biological Pest Control. 19:81–85.

EL-SUFTY, R., AL-BGHAM, S., AL-AWASH, S., SHAHDAD, A., and AL-BATHRA, A. 2011. **A trap for auto-dissemination of the entomopathogenic fungus *Beauveria bassiana* by red palm weevil adults in date palm plantations.** Egyptian Journal of Biological Pest Control. 21:271–276

EL-ZEMAITY, M. S., ABDEL-MEGEED, M. I., ABDUL-WAHED, M. S., and REDA, A. A. 2010. **Factors Influencing the Effectiveness of Certain Novel Insecticides against Red Palm Weevil.** In *IV International Date Palm Conference 882*, p. 923–927. Available at: http://www.actahort.org/books/882/882_107.htm

GINDIN, G., LEVSKI, S., GLAZER, I., and SOROKER, V. 2006. **Evaluation of the entomopathogenic fungi *Metarhizium anisopliae* and *Beauveria bassiana* against the red palm weevil *Rhynchophorus ferrugineus*.** Phytoparasitica. 34:370–379.

GÓMEZ-VIDAL, S., SALINAS, J., TENA, M., and LOPEZ-LLORCA, L. V. 2009. **Proteomic analysis of date palm (*Phoenix dactylifera* L.) responses to endophytic colonization by entomopathogenic fungi.** Electrophoresis. 30:2996–3005.

GUERRI-AGULLO, B., GOMEZ-VIDAL, S., ASENSIO, L., BARRANCO, P., and LOPEZ-LLORCA, L. V. 2009. **Infection of the Red Palm Weevil (*Rhynchophorus ferrugineus*) by the entomopathogenic fungus *Beauveria bassiana*: A SEM study.** Microscopy Research and Technique :NA–NA.

GÜERRI-AGULLÓ, B., LÓPEZ-FOLLANA, R., ASENSIO, L., BARRANCO, P., and LOPEZ-LLORCA, L. V. 2011. **Use of a Solid Formulation of *Beauveria bassiana* for Biocontrol of the Red Palm Weevil (*Rhynchophorus ferrugineus*) (Coleoptera: Dryophthoridae) Under Field Conditions in SE Spain.** Florida Entomologist. 94:737–747.

LLÁCER, E., SANTIAGO-ÁLVAREZ, C., and JACAS, J. A. 2012. **Could sterile males be used to vector a microbiological control agent? The case of *Rhynchophorus ferrugineus* and *Beauveria bassiana*.** Bulletin of Entomological Research. 1:1–10.

MERGHEM, A., and others. 2011. **Susceptibility of the red palm weevil, *Rhynchophorus ferrugineus* (Olivier) to the green muscardine fungus, *Metarhizium anisopliae* (Metsch.) in the laboratory and in palm trees orchards.** Egyptian Journal of Biological Pest Control. 21:179–183.

SALEH, M. M. E., HEGAZY, G., SALEM, M., HANOUNIK, S. B., AL-MOHANNA, O., ALHEJI, M. A., et al. 2004. **Persistence of *Steinernema carpocapsae* (Nematoda: Steinernematidae) and *Beauveria bassiana* (Deuteromycotina: Hyphomycetes) in soil around date palm trunks and their effect on adults of *Rhynchophorus ferrugineus*.** In *Proceedings of the 1st Arab Conference for Applied Biological Pest Control, Cairo, Egypt, 5 to 7 April 2004.*, p. 141–145. Available at: http://www.cabdirect.org/abstracts/20053186467.html

SEWIFY, G. H., BELAL, M. H., AL-AWASH, S. A., and others. 2009. **Use of the entomopathogenic fungus, *Beauveria bassiana* for the biological control of the red palm weevil, *Rhynchophorus ferrugineus* Olivier.** Egyptian Journal of Biological Pest Control. 19:157–163.

SHANCHUN, Z. H. Q. W. H., and XIAODONG, Y. W. S. 2010. **Isolation and identification of an entomopathogenic fungus strain of *Rhynchophorus ferrugineus* Oliver.** Acta Phytophylacica Sinica. 4:009.

BACTÉRIES ENTOMOPATHOGÈNES/ *ENTOMOPATHOGENOUS BACTERIA*

BANERJEE, A., and DANGAR, T. K. 1995. ***Pseudomonas aeruginosa*, a facultative pathogen of red palm weevil, *Rhynchophorus ferrugineus*.** World Journal of Microbiology and Biotechnology. 11:618–620.

EL-ZEMAITY, M. S., ABDEL-MEGEED, M. I., ABDUL-WAHED, M. S., and REDA, A. A. 2010. **Factors Influencing the Effectiveness of Certain Novel Insecticides against Red Palm Weevil.** In *IV International Date Palm Conference 882*, p. 923–927. Available at: http://www.actahort.org/books/882/882_107.htm

MANACHINI, B., ARIZZA, V., PARRINELLO, D., and PARRINELLO, N. 2011. **Hemocytes of *Rhynchophorus ferrugineus* (Olivier) (Coleoptera: Curculionidae) and their response to *Saccharomyces cerevisiae* and *Bacillus thuringiensis*.** Journal of Invertebrate Pathology. 106:360–365.

SALAMA, H. S., FODA, M. S., EL-BENDARY, M. A., and ABDEL-RAZEK, A. 2004. **Infection of red palm weevil, *Rhynchophorus ferrugineus*, by spore-forming bacilli indigenous to its natural habitat in Egypt.** Journal of Pest Science. 77:27–31.

SUBSTANCES D'ORIGINE NATURELLE/ *BOTANICALS*

BREAM, A. S., GHONEIM, K. S., TANANI, M. A., and NASSAR, M. I. 2001. **The disruptive effects of azadirachtin and jojoba on development and morphogenesis of the red palm weevil, *Rhynchophorus ferrugineus* (curculionidae: coleoptera).** In *Proceed. Sec. Int. Conf. Date Palms, Al-Ain, UAEU, pp. 280-303*. Available at: http://www.pubhort.org/datepalm/datepalm2/datepalm2_35.pdf .

MURTHY, N. B. K., AMONKAR, S. V., and others. 1974. **Effect of a natural insecticide from garlic (*Allium sativum* L.) & its synthetic form (diallyl-disulphide) on plant pathogenic fungi.** Indian Journal of Experimental Biology. 12:208–209.

MUTHIAH, C., NAIR, C. P. R., and others. 2006. **Bionomics and management of red palm weevil on coconut.** Indian Coconut Journal. 37:12–16.

PERES D., D., and IANNACONE O., J. 2006. Efectividad de extractos botanicos de diez plantas sobre la mortalidad y repelencia de larvas de *Rhynchophorus palmarum* L., insecto plaga del pijuayo Bactris gasipaes Kunth en la Amazonia del Peru. **[Effectiveness of botanical extracts from ten plants on mortality and larval repellency of *Rhynchophorus palmarum* L., an insect pest of the Peach palm *Bactris gasipaes* Kunth in Amazonia Peru].** Agricultura Tecnica. 66:21–30

SACCO, M., CANGELOSI, B., ARATO, E., LITTARDI, C., and PASINI, C. 2011. Valutazione dell' efficacia di alcuni mezzi di lotta a *Rhynchophorus ferrugineus* (Olivier) in condizioni sperimentali su palme *Phoenix canariensis* **[Evaluation de l'efficacité de certaines mesures de lutte contre *Rhynchophorus ferrugineus* (Olivier) en conditions expérimentales].** Ricerca. (4):90–98

SALAMA, P. H., and ISMAIL, I. A. 2007. **Potential of certain natural extracts for the control of the red palm weevil, *Rhynchophorus ferrugineus* (Oliver).** Archives of Phytopathology and Plant Protection. 40:233–236.

ACARIENS PARASITES ET PREDATEURS / *PARASITES AND PREDATORS MITES*

ABDULLAH, M. A., and others. 2009. **Biological control of the red palm weevil, *Rhynchophorus ferrugineus* (Olivier) (Coleoptera: Curculionidae) by the parasitoid mite, *Rhynchopolipus rhynchophori* (Ewing) (Acarina: Podapolipidae).** Journal of the Egyptian Society of Parasitology. 39:679.

ALLAM, S. F. M., and El-BISHLAWI, S. M. O. 2010. **Description of Immature Stages of *Aegyptus Rhynchophorus* (Elbishlawy & Allam) , (U ropodina, Trachyuropodidae).** Acarines. 4:3–5

ATAKAN, E., ÇOBANOĞLU, S., YÜKSEL, O., BAL, D. A., and others. 2009. **Phoretic uropodid mites (Acarina: Uropodidae) on the red palm weevil [*Rhynchophorus ferrugineus* (Oliver, 1790) (Coleoptera: Curculionidae)].** Türkiye Entomoloji Dergisi. 33:93–105.

HASSAN, M. F., NASR, A. K., ALLAM, S. F., TAHA, H. A., and MAHMOUD, R. A. 2011. **Biodiversity and Seasonal Fluctuation of Mite Families Associated with the Red Palm Weevil, *Rhynchophorus ferrugineus* Oliver (Coleoptera: Curculionidae) in Egypt.** Egyptian Journal of Biological Pest Control. 21:317–323

HASSAN, M. F., NASR, A. K., ALLAM, S. F., TANA, H. A., MAHMOUD, R. A., and others. 2011. **Biodiversity and seasonal fluctuation of mite families associated with the red palm weevil, *Rhynchophorus ferrugineus* Oliver (Coleoptera: Curculionidae) in Egypt.** Egyptian Journal of Biological Pest Control. 21:317–323.

PETER, C., and others. 1989. **A note on the mites associated with the red palm weevil, *Rhynchophorus ferrugineus* Oliv. in Tamil Nadu.** Journal of Insect Science. 2:160–161.

INSECTES PRÉDATEURS / *INSECTS PREDATORS*

ABRAHAM, V. A., KURIAN, C., NAYAR, N. M., and others. 1973. ***Chelisoches moris* F.(Forficulidae: Dermaptera), a predator on eggs and early instar grubs of the red palm weevil *Rhynchophorus ferrugineus* F. (Curculionidae: Coleoptera).** Journal of Plantation Crops. 1:147–152.

VIRUS ENTOMOPATHOGÈNES/ *ENTOMOPATHOGENOUS VIRUSES*

El-MINSHAWYA, A. M., HENDIB, R. A., and GADELHAKA, G. G. 2005. **Viability of Stored Polyhedrosis Virus of the Red Palm Weevil, *Rhynchophorus ferrugineus* (Olivier)(Coleoptera: Curculionidae).** Area-Wide Control of Insect Pests. Available at: http://www.iaea.org/inis/collection/nclcollectionstore/_public/36/060/36060887.pdf#page=257 .

GOPINADHAN, P. B., MOHANDAS, N., NAIR, K. P. V., and others. 1990. **Cytoplasmic polyhedrosis virus infecting redpalm weevil of coconut.** Current Science. 59:577–580.

VII. TECHNIQUE D'APPLICATION / *METHODS OF APPLICATION*

Cette partie traite plus particulièrement des travaux sur les techniques d'application (injection, application au sol) pour des insecticides de synthèse et des auxiliaires de lutte biologiques.

This section deals more precisely on research and experiments on methods of application (injection, soil applications) for chemical insecticides and biocontrol agents.

ABBAS, M. S. T., HANOUNIK, S. B., MOUSA, S. A., AL-BAGHAM, S. H., and others. 2000. **Soil application of entomopathogenic nematodes as a new approach for controlling *Rhynchophorus ferrugineus* on date palm.** International Journal of Nematology. 10:215–218.

AZAM, K. M., and RAZVI, S. A. 2001. **Control of red palm weevil, *Rhynchophorus ferrugineus* Oliver, using prophylactic spraying of date palms and trunk injection.** In *Proc. Second International Conference on Date Palms (Al-Ain, UAE,* p. 216–222. Available at: http://www.dpfs.org/Conferences/2001_Date_Palms_Conference/Vol_1_Page_216_222.pdf

DEMBILIO, Ó., LLACER, E., MARTINEZ DE ALTUBE, M. M., and JACAS, J. A. 2010. **Field efficacy of imidacloprid and *Steinernema carpocapsae* in a chitosan formulation against the red palm weevil *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) in *Phoenix canariensis*.** Pest management science. 66:365–370.

EL-EZABY, F. A., and others. 1997. **Injection as a method to control the Red Indian date palm weevil *Rhynchophorus ferrugineus*.** Arab Journal of Plant Protection. 15:31–38.

EL-SEBAEY, Y. 2004. **Field evaluation of certain insecticides against red palms weevil *Rhynchophorus ferrugineus* oliv. (coleoptera; curculionidae) in Egypt.**

HERNÁNDEZ-MARANTE, D., FOLK, F., SANCHEZ, A., FERNANDEZ-ESCOBAR, R., and others. 2003. **Control of red palm weevil (*Rhynchophorus ferrugineus* Olivier) using trunk injections and foliar sprays.** Boletín de Sanidad Vegetal, Plagas. 29:563–573.

METWALY, N. 2010. **Metwaly Endotherapic Injection Method for Palm Trees to Control the Red Palm Weevil (*Rhynchophorus ferrugineus* Olivier).** In *IV International Date Palm Conference 882*, p. 437–439. Available at: http://www.actahort.org/books/882/882_49.htm

MOORE, A. 2008. **Efficacy of Systemic Insecticide Injections Applied to Mature Coconut Palms.** University of Guam. Available at: http://www.guaminsects.net/CRB/docs/Coconut%20Injection%20Bioassay.pdf

RAO, P. V. S., SUBRAMANIAM, T. R., ABRAHAM, E. V., and others. 1973. **Control of the red palm weevil on coconut.** Journal of Plantation Crops. 1:26–27.

SALAMA, P. H., and ISMAIL, I. A. 2007. **Potential of certain natural extracts for the control of the red palm weevil, *Rhynchophorus ferrugineus* (Oliver).** Archives of Phytopathology and Plant Protection. 40:233–236.

SALEH, M. M. E., HEGAZY, G., SALEM, M., HANOUNIK, S. B., AL-MOHANNA, O., ALHEJI, M. A., et al. 2004. **Persistence of *Steinernema carpocapsae* (Nematoda: Steinernematidae) and *Beauveria bassiana* (Deuteromycotina: Hyphomycetes) in soil around date palm trunks and their effect on adults of *Rhynchophorus ferrugineus*.** In *Proceedings of the 1st Arab Conference for Applied Biological Pest Control, Cairo, Egypt, 5 to 7 April 2004.*, p. 141–145. Available at: http://www.cabdirect.org/abstracts/20053186467.html

WANG, L., CHEN, Z., QIAN, Z., SHE, D., MA, J., ZHANG, J., et al. 2008. ***Rhynchophorus ferrugineus*, a New Record of Curculionidae in Zhejiang [J].** Journal of Zhejiang Forestry Science and Technology. 4:019.

ZILAL, M. A. 2010. **Tree injection in Date Palm (*Phoenix dactylifera* L.) as means to control the RPW (*Rhynchophorus ferrugineus* Olivier, 1790).**

VIII. LUTTE PHYSIQUE / *PHYSICAL CONTROL*

Cette partie traite des mécanismes et techniques de stérilisation et d'autres procédés de lutte à partir de moyens physiques ou mécaniques.

This section deals with sterilization and other methods of control with physical or mechanical means.

STERILISATION ET IRRADIATION / *STERILISATION AND IRRADIATION*

AL-AYEDH, H. Y., and RASOOL, K. G. 2009. Sex ratio and the role of mild relative humidity in mating behaviour of red date palm weevil *Rhynchophorus ferrugineus* Oliv.(Coleoptera: Curculionidae) gamma-irradiated adults. Journal of Applied Entomology. 134:157–162.

AL-AYEDH, H. Y., and RASOOL, K. G. 2010. Determination of the optimum sterilizing radiation dose for control of the red date palm weevil *Rhynchophorus ferrugineus* Oliv. (Coleoptera: Curculionidae). Crop Protection. 29:1377–1380.

EL NAGGAR, S. E. M., MOHAMED, H. F., and MAHMOUD, E. A. 2010. Studies on the morphology and histology of the ovary of red palm weevil female irradiated with gamma rays. Journal of Asia-Pacific Entomology. 13:9–16.

FETOH, B. E. S. A., and others. 2011. Latent effects of gamma radiation on certain biological aspects of the red palm weevil (*Rhynchophorus ferrugineus* Olivier) as a new control technology. Journal of Agricultural Technology. 7:1169–1175.

KRISHNAKUMAR, R., and MAHESWARI, P. 2007. Assessment of the sterile insect technique to manage red palm weevil *Rhynchophorus ferrugineus* in coconut. Area-Wide Control of Insect Pests. 475–485.

LLÁCER, E., SANTIAGO-ÁLVAREZ, C., and JACAS, J. A. 2012. Could sterile males be used to vector a microbiological control agent? The case of *Rhynchophorus ferrugineus* and *Beauveria bassiana*. Bulletin of Entomological Research. 1:1–10.

RAHALKAR, G. W., HARWALKAR, M. R., RANANAVARE, H. O., and others. 1975. Laboratory studies on sterilization of the male red palm weevil, *Rhynchophorus ferrugineus* Oliv. In *International Atomic Energy Agency; Food and Agriculture Organization: Sterility principle for insect control 1974. Proceedings of the symposium on the sterility principle for insect control jointly organized by the IAEA and the FAO of the United Nations and held in Innsbruck, 22-26 July 1974.*, p. 261–267. Available at: http://www.cabdirect.org/abstracts/19750525020.html

RAHALKAR, G. W., SHANTARAM, K., HARWALKAR, M. R., RANANAVARE, H. D., and others. 1982. Mating competitiveness and effective life of the radiation-sterilized male red palm weevil, *Rhynchophorus ferrugineus* Oliv. In *Sterile insect technique and radiation in insect control: proc. symp., Neuherberg, 1981.*, p. 395–400. Available at: http://www.cabdirect.org/abstracts/19826743688.html

AUTRES MÉTHODES / *OTHER PROCESS*

KHATIB, C. Y., ISOTTON, A., PASQUALOTTO, C., and BERNABEI, L. 2010. Ecopalm Ring Machine: Microwaves Technology for the Total Disinfestations of the Palm Trees Affected by the Red Palm Weevil. In *IV International Date Palm Conference 882*, p. 527–532. Available at: http://www.actahort.org/books/882/882_59.htm

MASSA, R., CAPRIO, E., DE SANTIS, M., GRIFFO, R., MIGLIORE, M. D., PANARIELLO, G., et al. 2011. Microwave treatment for pest control: the case of *Rhynchophorus ferrugineus* in *Phoenix canariensis*. EPPO Bulletin. 41:128–135.

IX. LUTTE INTEGREE / *INTEGRATED PEST MANAGEMENT*

Cette partie liste des références bibliographiques sur les méthodes de lutte intégrée et la combinaison de méthodes pour la gestion des ravageurs.

This section lists references on Integrated Pest Managements and on research on combination of several methods to control the pests.

BLUMBERG, D. 2008. **Review: Date palm arthropod pests and their management in Israel.** Phytoparasitica. 36:411–448.

CHAPIN, E. 2009. **Papillon palmivore, charançon du palmier: Un panel de solutions possibles, probablement plus vite disponibles contre le papillon que contre le charançon.** Phytoma-La Défense des végétaux. (626-27). Available at: http://cat.inist.fr/?aModele=afficheN&cpsidt=22405737

FERRY, M., and GOMEZ VIVES, S. 2007. Medidas para el Control Integrado dei picudo rojo de la palmera (*Rhynchophorus ferrugineus*) **[Moyens pour la lutte intégrée du charançon rouge du palmier (*Rhynchophorus ferrugineus*)]**. Phytoma España. (166):43–45

KOPPENHÖFER, A. M., GREWAL, P. S., and KAYA, H. K. 2000. **Synergism of imidacloprid and entomopathogenic nematodes against white grubs: the mechanism.** Entomologia Experimentalis et Applicata. 94:283–293

MASSOUD, M., FALEIRO, J., EL-SAAD, M., and SULTAN, E. 2011. **Geographic Information System Used for Assessing the Activity of the Red Palm Weevil *Rhynchophorus Ferrugineus* (Olivier) in the Date Palm Oasis of Al-Hassa, Saudi Arabia.** Available at: http://www.degruyter.com/view/j/jppr.2011.51.issue-3/v10045-011-0039-3/v10045-011-0039-3.xml

MUKHTAR, M., RASOOL, K. G., PARRELLA, M. P., SHEIKH, Q. I., PAIN, A., LOPEZ-LLORCA, L. V., et al. 2011. **New Initiatives for Management of Red Palm Weevil Threats to Historical Arabian Date Palms.** Florida Entomologist. 94:733–736.

MURPHY, S. T., BRISCOE, B. R., and others. 1999. **The red palm weevil as an alien invasive: biology and the prospects for biological control as a component of IPM.** Biocontrol News and Information. 20:35–46.

MUTHIAH, C., NAIR, C. P. R., and others. 2006. **Bionomics and management of red palm weevil on coconut.** Indian Coconut Journal. 37:12–16.

NARDI, S., RICCI, E., LOZZI, R., MAROZZI, F., LADURNER, E., CHIABRANDO, F., et al. 2011. **Control of *Rhynchophorus ferrugineus* (Olivier, 1790) according to EU Decision 2007/365/EC in the Marche region (Central-Eastern Italy).** EPPO Bulletin. 41:103–115.

OU, S., XIE, E., SHEN, X., WANG, X., QIN, L., XIE, Y., et al. 2011. **Study on control technology of *Rhynchophorus ferrugineus* Fabricius.** Plant Diseases and Pests. 2:35–38, 45

RAMACHANDRAN, C. P. 2005. **Management of *Rhynchophorus ferrugineus* Olivier in the Gulf and Mediterranean region.** Available at: http://www.apccsec.org/CORD_ABSRTRACTS/CORD%202005/Vol_21_2/MANAGEMENT%20OF%20RHYNCHOPHORUS%20FERRUGINEUS%20OLIVIER.pdf

SHUKLA, P., VIDYASAGAR, P. S. P. V., ALDOSARI, S. A., and ABDEL-AZIM, M. 2012. **Antifeedant activity of three essential oils against the red palm weevil, *Rhynchophorus ferrugineus*.** Bulletin of Insectology. 65:71–76

TAPIA, G., RUIZ, M. A., and TÉLLEZ, M. M. 2011. **Recommendations for a preventive strategy to control red palm weevil (*Rhynchophorus ferrugineus*, Olivier) based on the use of insecticides and entomopathogenic nematodes.** EPPO Bulletin. 41:136–141.

VIDYASAGAR, P., AL SAIHATI, A. A., AL MOHANNA, O. E., SUBBEI, A. I., MOHSIN, A. M. A., and others. 2000. **Management of red palm weevil *Rhynchophorus ferrugineus* Oliv., a serious pest of date palm in Al Qatif, Kingdom of Saudi Arabia.** Journal of Plantation Crops. 28:35–43.

WANG, L., CHEN, Z., QIAN, Z., SHE, D., MA, J., ZHANG, J., et al. 2008. ***Rhynchophorus ferrugineus*, a New Record of Curculionidae in Zhejiang.** Journal of Zhejiang Forestry Science and Technology. 4:019.

PARTIE 2 : PAPILLON PALMIVORE / CASTNIID PALM BORER / *Paysandisia archon*

X. SITUATION / *SITUATION*

Cette partie liste des publications sur les analyses de risques ayant porté sur le ravageur ainsi que sur ses récentes introductions et sa progression dans certains pays.

This section is about pests introduction in some countries.

ALARIO, S. M. 2004. ***Paysandisia archon* (Burmeister, 1880)(Lepidoptera, Castniidae), nuevas localizaciones en la Península Ibérica y su gestión [*Paysandisia archon* (Burmeister, 1880)(Lepidoptera, Castniidae), nouvelles localisations dans la péninsule Ibérique et sa gestion]** . Bol Soc Entomol Aragón. 34:237–246.

AMERICA, S., and ARGENTINA, B. R. G. S. 2008. ***Paysandisia archon***. Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2338.2008.01214.x/full

COLAZZA, S., PRIVITERA, S., CAMPO, G., PERI, E., RIOLO, P., and others. 2005. ***Paysandisia archon* (Lepidoptera, Castniidae) a new record for Sicily.** Informatore Fitopatologico. 55:56–57.

MONTAGUD ALARIO, S., and others. 2004. ***Paysandisia archon* (Burmeister, 1880)(Lepidoptera, Castniidae), new localities from the Iberian Peninsula and its control.** Boletin de la SEA. (34):237–246.

MONTAGUD ALARIO, S., and RODRIGO Coll, I. 2004. ***Paysandisia archon* (Burmeister, 1880)(Lepidoptera, Castniidae): new palmae pest in expanding.** Phytoma España. 157:40-53. Available at: http://agris.fao.org/agris-search/search/display.do?f=2004/ES/ES04015.xml;ES2004001127

TAPIA, G., RUIZ, M. A., LARA, L., CANO, M., TÉLLEZ, M. M., and others. 2010. **First report of *Paysandisia archon* (Burmeister, 1880)(Lepidopterous: Castniidae) in an area near the Nature reserve of Cabo de Gata (province of Almeria, SE Spain).** Boletín de Sanidad Vegetal, Plagas. 36:119–120.

XI. TRAITS BIOLOGIQUES ET ECOLOGIQUES / *BIOLOGICAL AND ECOLOGICAL TRAITS*

Cette partie traite des caractéristiques biologiques et écologiques du ravageur. Les plantes hôtes et conditions d'élevage constituent des sous-parties spécifiques.

This section is about biological and ecological features of the pest. Hosts plants and rearing conditions are specific parts.

ASPECTS GÉNÉRAUX / *GENERAL ASPECTS*

DELLE-VEDOVE, R., BEAUDOIN-OLLIVIER, L., HOSSAERT-MCKEY, M., and FREROT, B. 2012. **Reproductive biology of the palm borer, *Paysandisia archon* (Lepidoptera: Castniidae).** Eur. J. Entomol. 109:289–292.

MILLER, J. Y. 1980. **Studies In The Castniidae. III. Mirocastnia.** Bulletin Of The All Yn Museum. (60): 1–15

I MONTEYS, V. S., ACÍN, P., ROSELL, G., QUERO, C., JIMÉNEZ, M. A., and GUERRERO, A. 2012. **Moths Behaving like Butterflies. Evolutionary Loss of Long Range Attractant Pheromones in Castniid Moths: A *Paysandisia archon* Model.** PloS one. 7:e29282.

I MONTEYS, V. S., AGUILAR, L., SAIZ-ARDANAZ, M., VENTURA, D., and MARTÍ, M. 2005. **Comparative morphology of the egg of the castniid palm borer, *Paysandisia archon* (Burmeister, 1880) (Lepidoptera: Castniidae).** Systematics and Biodiversity. 3:179–201. Available at: http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=310821

I MONTEYS, V. S., and AGUILAR, L. 2005. **The Castniid Palm Borer, *Paysandisia archon* (Burmeister, 1880), in Europe: Comparative biology, pest status and possible control methods (Lepidoptera: Castniidae).** Nach Entomol Ver Apollo NF. 26:61–94.

OLLIVIER, L., and FREROT, B. 2006. ***Paysandisia archon*: vous avez dit phéromone?** Phytoma-La Défense des végétaux. (594):30–32.

PLANTES HÔTES / *HOST PLANTS*

AMERICA, S., and ARGENTINA, B. R. G. S. 2008. ***Paysandisia archon***. Available at: http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2338.2008.01214.x/full

XII. LUTTE CHIMIQUE - INSECTICIDE DE SYNTHESE / *CHEMICAL CONTROL WITH SYNTHETIC INSECTICIDES*

Cette partie porte sur les travaux majeurs de recherche et d'expérimentation de solutions à partir d'insecticides de synthèse. Les références portant sur les expérimentations d'injections de produits phytosanitaires ont été regroupées dans la partie « Techniques d'application ».

This section deals with the mains research and experiments on chemical pesticides. References dealing with pesticides injections have been put together in the section "Application techniques".

ANDRE, N., CHAPIN, E., and VILLA, C. 2009. ***Paysandisia archon*: synthèse de 3 années d'expérimentation phytosanitaire.** *In AFPP–2eme conférence sur l'entretien des espaces verts, jardins, gazons, forêts, zones aquatiques et autres zones non agricoles, Angers–28 et 29 octobre 2009.* Available at: http://www.fredonpaca.fr/IMG/pdf/7_-_Andre_Nicolas.pdf

I MONTEYS, V. S., and AGUILAR, L. 2005. **The Castniid Palm Borer, *Paysandisia archon* (Burmeister, 1880), in Europe: Comparative biology, pest status and possible control methods (Lepidoptera: Castniidae).** Nach Entomol Ver Apollo NF. 26:61–94.

XIII. LUTTE BIOLOGIQUE/ *BIOLOGICAL CONTROL*

Cette partie porte sur les travaux majeurs de recherche et d'expérimentation de solutions biologiques à partir de plusieurs types d'auxiliaires. Les références portant sur les expérimentations d'injections de spécialités biologiques ont été regroupées dans la partie « Techniques d'application ».

This section deals with the main research and experiments on biocontrol agents. References dealing with injections or soil applications have been put together in the section "Application techniques".

NEMATODES ENTOMOPATHOGENES / *ENTOMOPATHOGENOUS NEMATODES*

ANDRE, N., and CHAPIN, E. 2010. **Nouveau moyen biologique contre le papillon palmivore: Des nématodes offrent une alternative biologique supplémentaire pour protéger les palmiers contre *Paysandisia archon*.** Phytoma-La Défense des végétaux. (635):27–30.

NARDI, S., RICCI, E., LOZZI, R., MAROZZI, F., LADURNER, E., CHIABRANDO, F., et al. 2009. **Use of entomopathogenic nematodes for the control of *Paysandisia archon* Burmeister.** In *Proceedings of the IOBC/WPRS Working Group "Insect Pathogens and Insect Parasitic Nematodes" and COST Action 862 "Bacterial Toxins for Insect Control", Pamplona, Spain, 22-25 June 2009.*, p. 375–378. Available at: http://www.cabdirect.org/abstracts/20113277904.html

PEREZ, L., ANDRE, N., GUTLEBEN, C., VENDEVILLE, J., LACORDAIRE, A. I., MAURY, A., et al. 2010. **Palmier, efficacité curative du nématode *Steinernema carpocapsae* contre le papillon palmivore *Paysandisia archon*: résultats d'essais conduits dans des jardins et espaces verts.** Phytoma-La Défense des végétaux. (637): 14–17.

CHAMPIGNONS ENTOMOPATHOGÈNES / *ENTOMOPATHOGENOUS FUNGI*

BESSE, S., and BONHOMME, A. 2008. **Use of entomopathogenic fungi as a means for the biological control of *Paysandisia archon*.** Available at: http://patentscope.wipo.int/search/en/WO2008087294 .

XIV. LUTTE PHYSIQUE / *PHYSICAL CONTROL*

AUTRES METHODES / *OTHER PROCESS*

PELTIER, J. B., HUGUIN, M., and GABORIT, P. 2010. Palmier, efficacité préventive d'une glu contre le papillon *Paysandisia archon*, résultats en ville de l'application une fois par an de cette barrière physique. Phytoma-La Défense des végétaux. (637):18–21.

PELTIER, J.-B. 2007. Une glu salvatrice contre le ravageur de palmiers *Paysandisia archon*. Available at: http://palmiers.bretagne.free.fr/Soigner_fichiers/BB_15397.pdf

XV. LUTTE INTÉGRÉE / *INTEGRATED PEST MANAGEMENT*

Cette partie liste une référence bibliographique sur les méthodes de lutte intégrée.

This section lists a reference on Integrated Pest Managements.

CHAPIN, E. 2009. **Papillon palmivore, charançon du palmier: Un panel de solutions possibles, probablement plus vite disponibles contre le papillon que contre le charançon.** Phytoma-La Défense des végétaux. (626-27). Available at: http://cat.inist.fr/?aModele=afficheN&cpsidt=22405737

PARTIE 3 : REFERENCES UTILES POUR LES DEUX BIOAGRESSEURS / *USEFUL REFERENCES FOR BOTH PESTS*

XVI. DOCUMENTATION TECHNIQUE GENERALE / *GENERAL DOCUMENTATION*

CSL (CENTRAL SCIENCE LABORATORY). 2007. Palm borer *Paysandisia archon*. Plant Pest Notice. Available at: www.csl.gov.uk

FRAVAL, A., and INRA. 2007. Un insecte à la page. Le délectable tueur de palmiers. Insectes. (146):30. Available at: http://www.inra.fr/opie-insectes/pdf/i146fraval4.pdf

FREDON Corse. 2007. Le Charançon rouge du palmier *Rhynchophorus ferrugineus* (Olivier).

REID, S., MORAN, H., and others. 2009. Palm borer, *Paysandisia archon*. In Palm borer, *Paysandisia archon*. Available at: http://www.cabdirect.org/abstracts/20117800033.html

RIOLO, P., NARDI, S., CARBONI, M., RIGA, F., PIUNTI, A., FERRACINI, C., et al. 2004. *Paysandisia archon* (Lepidoptera, Castniidae): first report of damages of the dangerous palm borer on the adriatic coast. Informatore Fitopatologico. 54:28–31.

SACCHETTI, P., CAMÈRA, A., GRANCHIETTI, A., ROSI, M. C., MARZIALETTI, P., and others. 2006. Identification, biology and spread of the Red Palm Weevil *Rhynchophorus ferrugineus* (Olivier) in Italy. Informatore Fitopatologico. 56:35–40.

SARTO I MONTEYS, V., and AGUILAR, L. 2005. The Castniid Palm Borer, *Paysandisia archon* (Burmeister, 1880), in Europe: Comparative biology, pest status and possible control methods (Lepidoptera: Castniidae). Available at: http://www.infopalmeras.es/IMG/pdf/articulo_paysandisia_archon-2.pdf

XVII. APPROCHES ORGANISATIONNELLE ET REGLEMENTAIRE / *ORGANIZATION AND POLICIES ASPECTS*

Cette partie traite des aspects organisationnels et réglementaires liés à la mise en œuvre de plans de gestion de ces ravageurs en France et à l'étranger. Le statut de ces ravageurs en France est indiqué dans les textes réglementaires (Légifrance).

This section deals with organization and policies measures to control the pests in France and abroad. The pests status in France is indicated in the regulation texts (Légifrance).

ORGANISATION / *ORGANIZATION*

ALARIO, S. M. 2004. *Paysandisia archon* (Burmeister, 1880) (Lepidoptera, Castniidae), nuevas localizaciones en la Península Ibérica y su gestión **[*Paysandisia archon* (Burmeister, 1880) (Lepidoptera, Castniidae), nouvelles localisations dans la péninsule ibérique et sa gestion].** Bol Soc Entomol Aragón. 34:237–246.

BORER, E. A. 2010. **New Pest Response Guidelines**. Available at: http://www.dec.ny.gov/docs/lands_forests_pdf/eabfedguidelines.pdf

COBOS SUÁREZ, J. M., and others. 2011. **Evolution of red palm weevil in the European Union and Regulatory Standards.** Phytoma España. 226:95-96. Available at: http://agris.fao.org/agris-search/search/display.do?f=2011/ES/ES1103.xml;ES2011000645

CONTI, F., TAMBURINO, V., RACITI, E., SESTO, F., BRUNELLI, A., and others. 2008. **Red palm weevil *Rhynchophorus ferrugineus* in Eastern Sicily: monitoring and control strategies.** In *Giornate Fitopatologiche 2008, Cervia (RA),* 12-14 marzo 2008, Volume 1, p. 303–304. Available at: http://www.cabdirect.org/abstracts/20083204716.html

GENERALITAT DE CATALUNYA, D. , D'AGRICULTURA ALIMENTACIO I ACCIO RURAL. 2007. Protocol per a la prevenció i lluita contra la plaga del morrut de les palmeres (*Rhynchophorus ferrugineus*) **[Protocole de prévention et de lutte contre le charançon rouge du palmier (*Rhynchophorus ferrugineus*)].**

RODA, A., KAIRO, M., DAMIAN, T., FRANKEN, F., HEIDWEILLER, K., JOHANNS, C., et al. 2011. **Red palm weevil (*Rhynchophorus ferrugineus*), an invasive pest recently found in the Caribbean that threatens the region.** EPPO Bulletin. 41:116–121.

RÉGLEMENTATION / *POLICIES*

DECOIN, M. 2010. **Palmier, les deux politiques contre le papillon palmivore et le charançon rouge.** Phytoma-La Défense des végétaux. 637: 22–23.

EPPO. 2012. **Lists of pests recommended for regulation as quarantine pests.** Available at: http://www.eppo.int/QUARANTINE/listA1.htm

LA COMMISSION DES COMMUNAUTÉS EUROPÉENNES. **Décision de la commission du 25 mai 2007 relative à des mesures d'urgence destinées à éviter l'introduction et la propagation dans la Communauté de Rhynchophorus ferrugineus (Olivier) [notifiée sous le numéro C(2007) 2161] (2007/365/CE).**

MINISTERE DE L'AGRICULTURE ET DE LA PECHE. **Arrêté du 31 juillet 2000 établissant la liste des organismes nuisibles aux végétaux, produits végétaux et autres objets soumis à des mesures de lutte obligatoire.** Available at: http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000000584174

MINISTERE DE L'ALIMENTATION, DE L'AGRICULTURE ET DE LA PECHE. **Arrêté du 21 juillet 2010 relatif à la lutte contre Rhynchophorus ferrugineus (Olivier).** Available at: http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000022506742

SANCO Unit E1 – Biotechnology and Plant Health. 2010. **Rhynchophorus ferrugineus control in the EU. Policy Aspects.** In *International Conference "Red Palm Weevil Control Strategy for Europe", Valencia, Spain.*

XVIII. LETTRE D'INFORMATIONS / *NEWLETTERS*

Cette partie donne un exemple de lettre d'informations française sur les deux ravageurs.

This section gives example of a French newletter on the two pests.

FNLON. Rhynch'info. La lettre d'information sur les ravageurs du palmier.

FREDON PACA. http://www.fredonpaca.fr

FREDON CORSE. http://wwwfredon-corse.com

Réalisé par : Caroline Gutleben caroline.gutleben@plante-et-cite.fr
et Florence Cadeau florence.cadeau@plante-et-cite.fr