

Southern IPM Priorities Archive

Priority: Demonstration of model integrated pest management strategy for turf and golf courses in the South, including:

- Scouting/monitoring and GIS/GPS precision management of nutrients and pesticides;
- Compost teas to build soil health and suppress plant pathogens;
- Biopesticides alone and in IPM schemes.

Submitted By: Glenn Williams (williams.glenn@epamail.epa.gov)

Organization: EPA

Submitted: Sep 09, 2004

Justification/Rationale:

- Importance to South: Pest and disease pressures on turf are high in the South, particularly with regard to proliferation of golf courses and parks in both urban and rural settings and in proximity to ecologically sensitive areas. Run-off and leachate pollute streams, rivers and estuaries and shallow ground waters.
- Intersection: Model strategies would have direct applicability to residential lawns and gardens, school grounds, landscapes for public and private buildings, etc.
- Changes increasing problem in future: Pest resistance to conventional pesticides; climatic phenomena associated with climate change model predictions.

Priority: Maintain needed management tools and add new tools

Submitted By: Mark Mossler (mamossler@mail.ifas.ufl.edu)

Organization: University of Florida

Submitted: Sep 10, 2004

Justification/Rationale: This priority is the key for the Florida component of the SRIPMC. This program seeks to keep stakeholders abreast of changes due to legislation, or more increasingly prevalent, manufacturers actions (such as cancellations). New chemistries and issues are also key priorities with regard to extension education (e.g. resistance management). Without this information, state and county extension personnel are not aware of the appropriate answer when queried by clients.

Priority:

- Reevaluation of techniques and tools available for IPM practitioners with emphasis on precision agriculture (GPS systems, mapping, record keeping, site specific delivery of pesticides) and evaluating new monitoring tools for use in IPM systems. Also, there is need to reevaluate, reorganize IPM delivery systems to practitioners.
- Promote stored grain IPM, with emphasis on fumigation safety.
- Promote use of integrated pest management tactics in wheat, corn, and forage crops.

Submitted By: Henry Fadamiro (fadamhy@auburn.edu)

Organization: Auburn University

Submitted: Sep 10, 2004

Justification/Rationale: There is a world of information (research and extension) out there, but it is scattered and sometimes hard to get a handle on. For instance, web sites may be out there, but even at a single institution similar information can be scattered over a number of web sites.

Priority: Is WIN-PST a reliable screening tool for assessing the potential for pesticide transport off-site, and how can its use be improved?

Submitted By: Lane Price (Lane.Price@nc.usda.gov)

Organization: NRCS

Submitted: Sep 10, 2004

Justification/Rationale: WIN-PST is a screening tool that utilizes soil type and chemicals applied, along with several site specific parameters (application method, residue management, slope, water table, etc) to rate a site's potential for various pesticide loss pathways. Its use is required for NRCS field offices by national policy.

Priority: Which species/combinations of cover crop plants and crop rotations (including perennials) will maximize soil aggregation and optimize infiltration and minimize runoff?

Submitted By: Lane Price (Lane.Price@nc.usda.gov)

Organization: NRCS

Submitted: Sep 10, 2004

Justification/Rationale: Although this sounds like more of a soil quality concern, minimizing rainwater runoff helps address concerns relating to soil erosion, nutrient management, crop moisture and yields, and pesticide movement, in addition to reducing crop/plant stress.

Priority: How effective are variations in cover crop management and the use of technologies such as cover crop rollers in weed suppression and reducing the use of pesticides?

Submitted By: Lane Price (Lane.Price@nc.usda.gov)

Organization: NRCS

Submitted: Sep 10, 2004

Justification/Rationale: We continue to need research on the benefits (and negatives) of allowing cover crops to remain in the field longer, and getting them planted earlier. We have a number of informal tests demonstrating a significant reduction in the use of pesticides is possible under some aggressive cover crop strategies on some crops.

Priority: Invasive species in urban and natural environments

Submitted By: Henry Fadamiro (fadamhy@auburn.edu)

Organization: Auburn University

Submitted: Sep 10, 2004

Justification/Rationale: A high priority for the Alabama IPM program is to monitor natural and urban forest environments for invasive species. Several insect species are of particular concern at this time. These include the Gypsy Moth, a serious defoliator that enters the state most years in small numbers by "hitchhiking on vehicles from northern infested states. Another potential problem is the Emerald Ash Borer, a recent introduction into the Midwest that has already killed thousands of ash trees and is spreading quite rapidly. This borer has the potential of becoming a serious pest of Ash trees in Alabama. In addition, at least two species of Asian ambrosia beetles have been recently found here on nursery plants. All of these insect pests, and other pest species, can best be dealt with when populations are small and isolated. Clearly, early identification and control would be preferable and far easier than trying to attempt eradication of a large population later.

Priority: cockroach, fly problems, pesticide exposure issues

Submitted By: Troy Pierce (pierce.troy@epa.gov)

Organization: EPA
Submitted: Sep 10, 2004

Justification/Rationale: We at EPA continue to get complaints and calls from parents that pest control companies & school personnel are routinely (monthly/weekly schedule) spraying pesticides in schools & daycares. Many times pesticide applicators are applying pesticides when children are present or right before children enter rooms in the morning. School/Daycare IPM continues to be underdeveloped in most states in the Southeast, and is especially limited in Alabama, Georgia, Mississippi and large sections of the Carolinas and Tennessee. Kentucky has a School IPM law a few years old and it would be nice to hear formally what challenges/successes Kentucky has had with implementing the law

Priority: Imported Red Fire ant
Submitted By: Pat Parkman (jparkman@utk.edu)
Organization: University of Tennessee
Submitted: Sep 10, 2004

Justification/Rationale: This pest complex (red, black and hybrid IFAs) is particularly damaging and costly to the states along the edge of expansion: NC, TN, AR, OK and TX. Every year, as the pests expand their range, the amount of area quarantined increases. In these areas commodity production costs increase due to quarantine restrictions, and commerce is curtailed. Situated at the leading edge of the IFAs' range, we are in a unique position to slow their spread. The combined effect of traditional management strategies (e.g., pesticides), biological control (recently we have found the parasitic decapitating fly to be widely established in east TN) and sub-optimal environmental (climactic) conditions may tip the balance so that IFAs are not thriving, but struggling to survive

Priority: Overuse of pesticides around homes and public areas
Submitted By: Tom Fuchs (t-fuchs@tamu.edu)
Organization: TAMU
Submitted: Sep 10, 2004

Justification/Rationale: Most IPM experts believe that we can solve most of the pest problems in and around residential and public areas with much fewer pesticides than are currently being used by implementing IPM tactics. The South has more than its share of pest problems both in homes and public areas. Overuse of pesticides around homes and public areas is both a direct human health problem and an indirect one through runoff of pesticides into streets, drainage ditches and, finally, into water supplies. Education of urban clientele is the key to implementing IPM in these areas and in reducing the amount of pesticides disposed of in sinks, toilets and other ill-advised methods. Work in these areas will not only help solve problems but will also gain support for IPM both among urban citizens and urban legislators.

Priority: run-off and water quality issues, off-target impacts
Submitted By: Mark Mossler (mamossler@mail.ifas.ufl.edu)
Organization: University of Florida
Submitted: Sep 10, 2004

Justification/Rationale: The National IPM roadmap and the above two impact arenas are pointing to risk reduction as goals to be achieved, or if achieved - measured. Over the course of authoring multiple new crop profiles and revisions, it has become apparent that reductions in risk for the environment, the applicator, and the consumer have occurred in all areas of Florida

production agriculture. However, these reductions are not apparent when the measure used to gauge risk reduction is “pounds on the ground.” Signal word analysis, lethal dose comparison, reduced risk adoption, and percent use of tolerance-exempted materials are all methods of analysis that will reveal risk reductions. This is a process that the Florida component will endeavor to expand in the future, so that regulators will be able to quote reliable figures of risk reduction.

There is an outcome of not producing these types of risk assessment. Grower surveys have indicated that much of Florida agriculture is currently under active IPM programs. Consequently, there “may not be too much further to go” in terms of adoption. That is why it is critical to actually measure the amount of risk reduction that has occurred in the past decade. Similar to impact arena (1.1) above, listed associations support the publishing of data which reflect the reductions in risk afforded by their growers’ adoption of IPM practices

Priority: Expand acceptance of practices that lead to reduced inputs, i.e conservation tillage, precision agriculture (to include site specific applications and management decisions based on plant monitoring)

Submitted By: Pat O’Leary (poleary@cottoninc.com)

Organization: Cotton Inc

Submitted: Sep 10, 2004

Justification/Rationale: Decreased use of pesticides without loss of control efficacy is always a goal of IPM

Priority: management of imported fire ants

Submitted By: Pat Parkman (jparkman@utk.edu)

Organization: University of Tennessee

Submitted: Sep 10, 2004

Justification/Rationale: This pest complex (red, black and hybrid IFAs) is particularly damaging and costly to the states along the edge of expansion: NC, TN, AR, OK and TX. Every year, as the pests expand their range, the amount of area quarantined increases. In these areas commodity production costs increase due to quarantine restrictions, and commerce is curtailed.

Situated at the leading edge of the IFAs’ range, we are in a unique position to slow their spread. The combined effect of traditional management strategies (e.g., pesticides), biological control (recently we have found the parasitic decapitating fly to be widely established in east TN) and sub-optimal environmental (climactic) conditions may tip the balance so that IFAs are not thriving, but struggling to survive.

Priority: use of pesticides in urban areas which impact urban streams

Submitted By: Troy Pierce (pierce.troy@epa.gov)

Organization: EPA

Submitted: Sep 10, 2004

Justification/Rationale: USGS NAWQA studies consistently show that certain pesticides exceed aquatic life criteria in many urban streams in the Southeast.

Priority: Specific IPM strategies are needed to protect water from important pesticides that are subject to runoff or leaching in Southern cropping systems.

Submitted By: Carol Somody (carol.somody@syngenta.com)

Organization: Syngenta Crop Protection

Submitted: Dec 06, 2004

Justification/Rationale: While reducing pesticide use is a central theme of many IPM programs, pesticides remain a key component of most production agriculture systems. More research is needed on specific strategies (system, crop, and/or product specific, as appropriate) to protect water from important pesticides.

Priority: Weed resistance, weed shifts, and whole-system resistance management strategies for important Southern crop- and pesticide- rotations.

Submitted By: Carol Somody (carol.somody@syngenta.com)

Organization: Syngenta Crop Protection

Submitted: Dec 06, 2004

Justification/Rationale: An organized approach is needed to assess the importance of various factors on weed shifts and weed resistance in important Southern crop- and pesticide- rotations, including the short term and long term direct and indirect costs (reduction in yield/tillage options/water quality, etc.)

Priority: Whole-system IPM (control, resistance management, and protection of beneficials) for sucking insect pests (whiteflies, aphids, and plant bugs)

Submitted By: Carol Somody (carol.somody@syngenta.com)

Organization: Syngenta Crop Protection

Submitted: Dec 06, 2004

Justification/Rationale: Sucking insects are a relatively new and increasingly important group of pests. Whole-system IPM strategies are needed to ensure adequate control, resistance management, and protection of beneficials where these pests reach economic thresholds.

Priority: Southern Soybean Rust Fungicide Use Strategies

Submitted By: Don Hershman (dhershma@uky.edu)

Organization: University of Kentucky

Submitted: May 04, 2006

Justification/Rationale: There is the potential for a great deal of fungicide to be deployed, unnecessarily or ineffectively, unless fungicide use strategies are developed for the southern US. Northern strategies that may be developed may not adequately meet the needs of southern soybean producers. There are approximately 16 million acres of soybean in the southern US, so the proper use of fungicides is essential for both economic and environmental reasons.

Priority: Cry1Ac-Cry1Fa cross-resistance and Cry1Fa receptors

Submitted By: Juan Luis Jurat-Fuentes (jurat@utk.edu)

Organization: University of Tennessee

Submitted: May 04, 2006

Justification/Rationale: Considering the increased usage of WideStrike cotton technology, there is a need for better characterization of potential Cry1Ac-Cry1Fa cross-resistance in target pests. Contrary to Cry1Ac, there is hardly any work done on characterization of Cry1Fa insect receptors and mode of action.

Priority: Management of gmo pest control technology.

Submitted By: Dennis West (dwest3@utk.edu)

Organization: Univ of Tennessee

Submitted: May 04, 2006

Justification/Rationale: Genetically modified crop plants are being widely used to control weeds(roundup) and insects (bt). Current strategies do not appear adequate to prevent pest resistance and ultimate failure of these control strategies.

Priority: Plant bug sampling and thresholds in cotton.

Submitted By:

Organization:

Submitted: May 04, 2006

Justification/Rationale: Most important pest in Midsouth cotton. Affects millions of acres with multiple sprays per acre.

Priority: Regional educational programming related to cotton pest management.

Submitted By:

Organization:

Submitted: May 04, 2006

Justification/Rationale: A highly-managed major crop with multiple pests, new technologies, and pesticide resistance issues. Requires high level training by unbiased educators.

Priority: Development of sampling methodology and action thresholds for Heteropteran pests in field corn, cotton, and soybean.

Submitted By: B. Roger Leonard (rleonard@agcenter.lsu.edu)

Organization: LSU AgCenter

Submitted: May 05, 2006

Justification/Rationale: Changes in Southern cropping production systems have increased the frequency of economic injury from Heteropteran pests in these crops. The lack of available and recently validated action thresholds is causing improper and mis-timed oversprays or yield losses from lack of treatment.

Priority: Validation and demonstration of cultural control methods for early season pests in no-tillage production systems

Submitted By: B. Roger Leonard (rleonard@agcenter.lsu.edu)

Organization: LSU AgCenter

Submitted: May 05, 2006

Justification/Rationale: An integrated approach to IPM using pre-plant vegetation management strategies should be validated and demonstrated to reduce the probability of seed and seedling pest injury to cotton, corn, and soybean. Seed and technology costs have caused producers to reduce seeding rates to minimum levels. Insecticide-treated seed (IST's) is being used on the majority of the acreage but is not consistently effective due to the pest pressure caused by mis-timed vegetation management. This, in turn, is increasing stand loss and un-necessary oversprays.

Priority: Monitoring of pyrethroid susceptibility in corn earworm across the southern region

Submitted By: B. Roger Leonard (rleonard@agcenter.lsu.edu)

Organization: LSU AgCenter
Submitted: May 05, 2006

Justification/Rationale: Corn earworm is a pest of over 50 horticultural and agronomic crops. One or more pyrethroids are labeled to control this pest on those crops. Populations exhibiting reduced susceptibility to pyrethroids have been identified with collections from suspected field control failures. The first step in validating the problem and managing this issue requires a regional survey from several crops. The loss of the pyrethroids as an effective control measure against corn earworm would certainly have extreme implications on numerous crop IPM systems affecting economic and environmental concerns.

Priority: Management and mitigation of tomato spotted wilt and other tospoviruses.
Submitted By: John L. Sherwood (sherwood@uga.edu)
Organization: Plant Pathology Dept., Univ. of GA
Submitted: May 05, 2006

Justification/Rationale: Tomato spotted wilt virus causes significant losses in many crops in the Southeast. Other tospoviruses and thrips vectors are emerging and becoming established. There is significant potential for these pests to cause significant disease loss in the future. Understanding the nature of these pests, their etiology, and the epidemiology of the diseases they cause is fundamental to mitigation and management strategies.

Priority: Glyphosate-resistant weeds
Submitted By: Alan York (alan_york@ncsu.edu)
Organization: N. C. State Univ.
Submitted: May 05, 2006

Justification/Rationale: Roundup Ready technology has been readily accepted by growers in the southeastern US. In NC, for example, 98 to 99% of our cotton is Roundup Ready, 85% of the soybeans are Roundup Ready, and we will probably reach 50% of the corn this year. We have identified one resistant *Amaranthus* species in NC and GA, and *Chenopodium* in VA. *Lolium* is being questioned. With the dependence our growers are placing on glyphosate for both vegetative control in no-till systems and for in-crop weed control in RR crops, we need to develop reasonable resistance management strategies that are acceptable to growers, more strongly promote resistance management, and begin looking for alternatives for specific weed species.

Priority: Invasive Chinese Privet control.
Submitted By: Scott Gold Associate Professor Plant Pathology (sgold@uga.edu)
Organization: University of Georgia, Athens
Submitted: May 06, 2006

Justification/Rationale: Chinese Privet is the number one threat to natural systems in Georgia and much of the south. It is a hedge former and likely will replace forest in some areas with monoculture scrub land. The problem stems from use of the plant as an ornamental and its subsequent spread by birds and water. There are no or few pests of the plant in this region to counter its spread. It is a very aggressive competitor. The area effected is already likely in the millions of acres. Physical removal is very costly. Biological control is an attractive approach.

Priority: Stink bugs, especially brown and southern green stink bugs, on cotton, soybeans, corn, grain crops, peanuts, pecans and other tree fruits crops.
Submitted By: David Buntin (gbuntin@griffin.uga.edu)

Organization: Univ. of Georgia
Submitted: May 08, 2006

Justification/Rationale: Since the deployment of Bt cotton, stink bugs have become a serious pest in cotton, as well as other field, vegetable, and fruit-tree crops in the southern coastal plain region. They are a landscape problem and move from crop to crop during the season. A recent meeting at Tifton, GA had no fewer than 10 state and federal entomologist representing, grain crops, cotton, soybean, peanuts, pecans, and vegetable all considering stink bugs to be a serious pest of increasing importance in their commodity area. Furthermore, despite the registration of new chemistries especially in cotton, none are effective against stink bugs. The predominant insecticides used are OPs (methyl parathion, budrin) and pyrethroids (several types).

Priority: Sampling for hemipteran pests in cotton
Submitted By: Ralph Bagwell (rbagwell@agcenter.lsu.edu)
Organization: LSU
Submitted: May 11, 2006

Justification/Rationale: Cotton IPM has undergone a significant change during the past 10 years. Transgenic cotton and boll weevil eradication have eliminated two insect pests that were once the primary pests of cotton. Cotton IPM programs, however, are still based on these sampling for the pests. Hemipteran insect pests (plant bugs and stink bugs) are now the primary insect pests of cotton in the mid-south and southeastern cotton production areas of the US. Yet, relatively little is known about sampling for these pests in cotton, especially blooming cotton. Essentially, cotton IPM currently lacks the foundation for a successful IPM program because of a lack of confidence in the ability to detect the primary insect pests.

Priority: Invasive species (cropland and non-cropland) education and management
Submitted By:
Organization:
Submitted: May 11, 2006

Justification/Rationale: Invasive species affect more than forests and roadsides. They affect crop production and profitability (e.g. tropical spiderwort affects thousands of acres in GA, FL, NC, etc), livestock production and trade (e.g. tropical soda apple and cogongrass), woodlot management (tree-of-heaven, wysteria and kudzu), and irrigation/drainage/recreation (hydrilla and other invasive aquatic weeds). A program similar to Florida's aquatic weed management program is needed to offer education and training on ID, biology, and management recommendations for "land weeds" in the Southeast.

Priority: Stable flies have long been known as a serious pest of confined cattle (feedlots and dairies) but in recent years have become a major problem for pasture and range cattle. We can manage stable fly problems for confined cattle but have no control strategies for the flies on grazing cattle. We don't know their source and don't have a method for their control
Submitted By: John B. Campbell (jbcampbell1@unl.edu)
Organization: University of Nebraska member Reg. Res. Proj. S 1005
Submitted: May 11, 2006

Justification/Rationale: Stable flies cause weight reductions on grazing cattle throughout much of the US in the summer cattle under attack bunch fail to graze properly and their stomping injures calves (the flies feed on the front legs) . Currently their is no effective control method available for stable flies on grazing cattle

Priority: Potential of Southern Cattle Tick to overcome coumaphos dipping as an import barrier

Submitted By: Kevin Temeyer (Kevin.Temeyer@ars.usda.gov)

Organization: USDA-ARS

Submitted: May 12, 2006

Justification/Rationale: Southern cattle ticks were previously endemic to all or parts of 17 Southern states in the US and were eradicated from the US after a decades-long program. Southern cattle ticks are kept from reentry by coumaphos dip & inspection at U.S.-Mexico border import inspection stations. Southern cattle ticks are effective vectors for bovine babesiosis and anaplasmosis (both are endemic in Mexico) potentially capable of massive damage to U.S. cattle industry, where mortality of mature, naive cattle can approach 90% of infected animals. Southern cattle ticks may be resistant to organophosphate pesticides and the maximum level of resistance attainable is currently unknown. Few acaricides are amenable to use at the import barrier, with resistance to pyrethroids and organophosphates becoming increasingly widespread. To date, known strains can still be controlled by coumaphos dip, but the potential for resistance development is unknown, posing a threat to the effectiveness of the import barrier.

Priority: Resistance management. The issue is growing in importance in weed management (i.e. glyphosate resistant palmer amaranth) and insect management (potential corn earworm resistance to pyrethroid insecticides).

Submitted By: Steven M. Brown (smbrown@uga.edu)

Organization: University of Georgia, Crop & Soil Sciences Dept

Submitted: May 16, 2006

Justification/Rationale: Glyphosate resistant pigweed threaten agronomic production of cotton, peanuts, and possibly soybeans. If the efficacy of pyrethroids for corn earworm is lost, challenges for insect management in cotton and sweet corn will escalate.

Priority: Pest fleas are making a comeback.

Submitted By: N.C. Hinkle (NHinkle@uga.edu)

Organization: Univ. of Georgia

Submitted: May 16, 2006

Justification/Rationale: Where are fleas worse than here in the South?! There are over 65 million pet dogs and 78 million pet cats in the United States. More than half U.S. households have at least one pet. Not all of these animals have fleas, but American consumers spent over \$1 billion for on-animal flea control in 2000. Coupled with over-the-counter and pest control services for environmental flea suppression, this is a significant market. Fleas are resurging as a major problem, whether due to insecticide resistance, loss of registered products, environmental changes, or other unknown factors. Research needs to stay ahead of the curve to provide sustained resources for flea suppression.

Priority: IPM for ornamental horticulture, including florticulture (flowers/ferns).

Submitted By: Lora Lee Schroeder (Schroeder.Lora@epa.gov)

Organization: U.S. EPA

Submitted: May 18, 2006

Justification/Rationale: While I don't have specific figures, the ornamental industry is huge in the S.E. and likely impacting the environment. Also, there is lots of hand labor involved and potential for worker exposure.

Priority: Developing a management strategy for tarnished plant bug in cotton, alternative control methods, insecticide resistance monitoring and avoidance, threshold and sampling strategies.

Submitted By: Gus Lorenz (glorenz@uaex.edu)

Organization: UofA

Submitted: May 22, 2006

Justification/Rationale: Pest management strategic plan identifies TPB as the major cotton pest. Recent survey conducted with consultants and growers indicates it to be the number one problem.

Priority: Educational Program for consultants and fieldsmen in row crops.

Submitted By:

Organization:

Submitted: May 22, 2006

Justification/Rationale: Recent technological advances such as transgenic cotton, precision farming, and changes in production such as boll weevil eradication, no-till/ limited till has dramatically changed pest management. To help these people keep up to date a workshop including hands-on training would be very beneficial. Recent surveys of consultants indicate they prefer more "audience participation" and retain more of what they learn.

Priority: Aerial pesticide spraying

Submitted By: Troy Pierce (tpierce@poarchcreekindians-nsn-gov)

Organization: Poarch Band of Creek Indians & U.S. EPA

Submitted: May 25, 2006

Justification/Rationale: We have a lot of complaints near the Poarch Band of Creek Indians' Reservation of pesticide drift and direct spraying that contacts homes, automobiles, clothes on the clothes line etc. I personally have been directly sprayed by aerial applicators in the last year twice while driving down the road. I am on assignment to the Tribe from US EPA was very surprised when my truck was covered in spray. Definitely need some more training and compliance assistance to aerial applicators here.

Priority: Epidemics of emerging plant diseases caused by arthropod-transmitted bacteria and viruses have increased in importance over the last two decades; and current management systems are weak or are nonexistent altogether.

Submitted By: Ronald Gitaitis (dronion@uga.edu)

Organization: The University of Georgia

Submitted: May 25, 2006

Justification/Rationale: A team approach is essential for the development of management systems that identify and exploit weak links in the life cycle events of the pathogen, vector and plant/weed reservoir hosts. The lack of success in controlling plant diseases transmitted by aphids, leaf hoppers, thrips and whiteflies with a single and traditional pest control tactic indicates the need for integrated management strategies that incorporate the principles of avoidance, exclusion, eradication, chemical protection, and resistance management. Unfortunately, there is a lack of fundamental information regarding the complete biology of both vector and pathogen, which hinders the development of efficient and multiple strategies that target the best time or site with an appropriate action within the context of host plant, pathogen, vector and plant/weed reservoir host interactions. Without this information, researchers cannot develop an effective IPM

system and extension personnel have limited information to assist stakeholders for the management of arthropod-vectored plant pathogens.

Priority: IPM for Winter Canola

Submitted By: Tom A Royer (tom.royer@okstate.edu)

Organization: Oklahoma State University

Submitted: Jun 27, 2006

Justification/Rationale: Winter canola is being critically evaluated for use as an alternative rotational crop for wheat producers in Kansas, Oklahoma and Texas. Currently, it has low acreage because it is being evaluated for agronomics, harvest, and pest pressure. It is being looked at as a possible source of bio diesel, and has great potential. It has a number of insect and disease pests that could potentially cause problems for producers. IPM issues need to be addressed.

Priority: Arthropods that bite and sting are foremost among pests that affect the quality of life for people and companion animals in the southeastern US. Resurgence of established pests is becoming a common occurrence. New threats from introduced arthropods and arthropod-transmitted diseases continue to emerge in urban landscapes.

Submitted By: Charles Apperson (charles_apperson@ncsu.edu)

Organization: Informal Working Group of Southeastern Public Health Entomologists

Submitted: Sep 11, 2006

Justification/Rationale: The economic and public health impacts of biting and stinging pests are substantial. For example, the collective economic impacts of the red imported fire ant in urban areas are estimated at almost \$5 billion yearly by the USDA. Transmission of West Nile virus by mosquitoes has resulted in almost 20,000 human cases and 970 deaths from 1999 to 2005. Estimated economic impacts of the epidemic from medical expenses and costs of the public health response in 2002 amounted to approximately \$20 million for the state of Louisiana alone. There is an estimated 6 - 12 million cases of head louse infestation occur each year in the U.S. with direct costs of treatment estimated to amount to several hundred million dollars annually. The problem has been exacerbated by misdiagnosis of head louse infestations, resulting in an estimated loss of 12 - 24 million school-days per year and causing repeated application of pediculicides and possible over exposure to insecticides.