

## ESCOP – ECOP BIOTECH SURVEY – Topline Results

### FINAL COMMENTS

#### **Q22. That completes the questionnaire. Do you have any final comments or suggestions that you want to make?**

1	LGU's need to continue to work with biotechnology, but not to the detriment of traditional programs. Biotechnology can be a very useful tool, but it should not be viewed as the answer to all our problems.
2	See above.
3	A comprehensive survey.
4	A survey like this is probably like "preaching to the choir"; most of the people in the LGU system are supportive of biotechnology. The people who need to be convinced about benefits are in business, politics, and law; not the people who are working on the technology.
5	All the research and product development will not be effective without the adoption of the product by consumers. Communication in effective ways to educate consumers is essential in order to benefit business, agriculture, and individuals.
6	All Universities are jumping on the bandwagon (or did 20 years ago). So is industry. There are plenty of folks who can do biotech but few who can objectively evaluate it. The science of the effects of biotech is 20 years behind. LGU's in their public service role could lead the way in research and education on the safety, environmental effects, and public perceptions concerning the different aspects of biotech.  Will we? I doubt it. Most conversations w/in the academic community revolve around how important biotech is (more money) and how, if we just explained it, the public would surely approve. What if they don't? What would be the effect on LGU system?
7	Although I feel that Land Grant Universities should be involved with biotech research and education, this should not in anyway take resources from more conventional agricultural research and education. In other words, Hatch funds should continue to fund applied research and new sources of funding (which are available through several programs) should be used for biotech research. Currently resources for biotech research far surpass those for applied research. I hope that the "secret" purpose of this survey is not to shift more of the Hatch funding from applied agriculture to biotech.
8	Although I feel we should address this issue, I caution that we don't address it with our current level of knowledge. I am also very leery of our inherent bias.
9	Appreciate the survey. Wise move.
10	As you requested, I forced the choices to distribute my answers. Do not interpret these as absolute answers, but relative to the other choices.
11	Be positive, quit apologizing, get the LGU story to the public. It's such an amazing success story.
12	Because I am not in a land-grant institution, I am curious why I received this questionnaire. I did complete the questionnaire with my opinions, however. I have been closely associated with land-grant institutions in the past.
13	Best of luck. I genuinely think the tide is turning in our favor.
14	Best wishes. This is an important task.
15	Biotech cannot be focused on to the exclusion of "traditional" disciplines. Else you may have gotten the gene inserted, but may not get it expressed if you place other limitations on the organism.

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16	Biotech has great potential. Impact will be greater than the development of hybrids, which was major. Much of the control needs to remain in the public domain and must be communicated as to the eventual benefits to the consuming public. Control of food production is almost a monopoly with 4 major corporations controlling most of meat and grain production. The need to keep part of biotech control in public domain is that companies are interested in selling products while much of what we do at Land Grants uses technologies to improve the productivity or protection of systems. Without that free flow of info, corporations would gain too much control.
17	Biotech research should be funded the same as all LGU research in the past with heavy dependence on formula funding. LGUs must remain unbiased and, therefore, must not partner with the private sector. LGUs must do a much better job of advertising to the public what they do or the result will be "out of site, out of mind." As it stands now, the multinational corporations take all of the credit for science and tech breakthroughs. Every society needs unbiased research and extension; otherwise monopoly power and corruption will prevail.
18	Biotechnology has the potential to do much good, but will it in reality really benefit the producer and consumer is still unclear.
19	Biotechnology is a necessity with many benefits but we can't disregard people's apprehensions about the potential risks.
20	Biotechnology is here and has a bright future. The public needs to be convinced that it is not a cure-all but has a rightful place.
21	Biotechnology is just the last in a long history of trying to subdue Nature to produce food and fiber instead of trying to use Nature as the model to produce food. Biotechnology is the last silver bullet in a long line of silver bullets proposed to address ecological issues associated with agriculture. After a 60 year history of dealing with the ecological issues related pesticides, and persistent organ chlorine products, that we would address these issues before releasing them in the surrounding ecosystems
22	Biotechnology is not a panacea. Extension should present it as another tool available. As such it complicates the decision-making process of both producers and consumers. This is where research and extension need to concentrate a major effort. But Land-grant Universities also have a responsibility to counter-balance the efforts of those who would demonize all forms of biotechnology, and rail against it even while insisting on diet sodas as their drink.
23	Biotechnology needs to be defined; the term can take on varied meanings, depending on who uses the term and in what context it is used. Recombinant materials are only one form of biotechnology; pollutant remediation and food safety strategies are examples of different forms. Consumers need definitions rather than be encouraged to use general terms or generalities.
24	Biotechnology, like all other technologies, is very useful. But, it can be abused-biologically, socially and economically. Laws must be put in place to take the advantages of biotechnology for farmers and the public and prevent abuses that can result from "hording" information.
25	Can I get a copy of the survey?
26	Can we get the results?
27	Check < <a href="http://psandman.com/">http://psandman.com/</a> > for the real challenges.
28	Consumers just want to know the food is safe - nothing more, nothing less.
29	Corporate support of LGU research is not necessary because of dwindling public support for research. Too many parameters in this (and other questions), making it difficult to answer some of the questions on the scale provided. Yes, public support is declining. But I haven't bought the proposed solution of direct corporate support. Frankly, I am all for increasing corporate tax and using the GPR to pay for public higher education. Another example: potential impacts of biotechnology. Yes, farmers need lower input costs, but I don't think that biotech will give farmers this outcome. How do I answer this question??? Another - best available science - the way this term is used assumes that we are not including social science in the mix.

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30	Did you survey consumers as well as educators?
31	Don't campaign with this. Work with those in a panic to help them be rational. Don't set the stage for mega companies to own genetic material and blackmail the public. Work so that industry can have patents for short times. Try to work so that government can make a decision to withdraw biotech plants when problems arise in the future.
32	Education is the key to behavioral changes. When I cover biotechnology in my classes, the students are initially informed and taught to critically analyze the information before formulating their opinions on the topic. I believe the farmer (and consumer) needs to be fully informed before making a decision regarding biotechnology.
33	Education of the public is essential. This should begin in elementary school.
34	Examples of biotechnology applications would have been helpful.
35	Extremely long. Tedious, taking longer than your estimate because of 15' screen size fit.
36	Failure in this survey to differentiate among farmers made it impossible for me to answer some questions. Yes, there will be those who will benefit, just as there will be those who will suffer. Just like every other tech innovation.
37	Farmers, farmers, farmers! Are you aware of the medical colleges associated with land grant universities? Medical departments not only use biotechnology, they invented it too!!!
38	For food related biotech, develop and maintain scientifically defensible safeguards for research protocols and product safety. Protect research establishments for ecoterrorists. Give consumers an informed choice and let them decide based on price and product characteristics.
39	Given the food shortage in the world, we are doing too little too slow, not too much too fast.
40	Glad to see that you are conducting this survey!
41	Glad to see that you are involving broad spectrum of folks from the university system -- and not just "aggie."
42	Glad to see this happening. Well constructed.
43	Go State! I did my MS in Horticulture at NCSU.
44	Good luck
45	Good luck
46	Good luck and where will the results be posted?
47	Good luck with the survey.
48	Good luck!
49	Good Luck, Nick and Tom!
50	Good luck, this is an important topic and deserves careful consideration.
51	Good luck.
52	Good luck.
53	Good questions.
54	Good success. This process needs is needed.
55	Good survey. Please send the results to the same people you sent the questionnaire to.
56	Great idea and solid survey.
57	Great idea to do this survey. How can we get the results? Are you communicating with Dean Neil VanAlfen at UC-Davis? rbowden@ksu.edu
58	Great question are. Hope that it may bring about some change on how we do business at the LGs.
59	Great to see that you're doing this.
60	Hope the outcome is beneficial.
61	How do I get the results?
62	Humility in the face of biotechnology is called for freedom of speech/freedom of choice through labeling is also called for.

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63	<p>I am a strong supporter of extension programs for educating the public. However, much of the biotechnology issue is not about scientific aspects per se, but rather emotional and ethical concerns. I do not think that extension agents are the best way to educate the public with this sensitive, very technical issue. And I think that technical people tend to "talk down" to the public when it comes to a complex issue like biotechnology. So—educate the advocates, and work with consumer groups. But don't take the full responsibility for educating the public—biotechnology is too large an issue and all aspects of biotechnology cannot be covered adequately by the LGU. It would be more effective, IMHO, to involve both public and private clientele/representatives to ascertain and determine biotechnology policy.</p>
64	<p>I am concerned that the government granting agencies do NOT offer grants for applied biotechnology research. For instance, NSF or USDA-NRI will support research to extend the boundaries of knowledge of genetic engineering in plants, yet they will not fund research that attempts to put economically important genes into landscape plants since the work has already been done with tobacco or Arabodopsis. My personal gripe!</p>
65	<p>I am head of a department that reports to 2 colleges, Agriculture and Liberal Arts and Sciences. I have been associated with AG colleges for over 25 years at 4 institutions. I am amazed at how much time Ag colleges around the country spend trying to figure out if they have a function in contemporary America. Other colleges never seem to do this - they have too much work to do. It seems to me that a survey like this drives home once again that Ag. Colleges around the country need to answer if they really have a purpose for existence with their present structures and goals or if need to either dissolve or radically reorganize. If we have not figured out our purpose for existence in the last generation maybe we really are looking in the wrong direction.</p>
66	<p>I am in family science, so have no insider perspective from which to answer this survey.</p>
67	<p>I am not in biotechnology, so the answers above should be considered as coming from a layman.</p>
68	<p>I am only a slight advocate for biotechnology for agriculture and food crops for a variety of reasons. My weak support relates to my personal complaints about the way that biotechnology research is handled in this country.</p> <p>First, very little research fu</p>
69	<p>I am suspicious how the result of this questionnaire will be used, but hope for the best. The Lugs have largely lost the justification claimed to exist in the public interest, and I wonder how long they will be allowed to in the current form. I believe their survival depends on returning from "corporate academic welfare" to a true public institution of higher learning of the golden past.</p>
70	<p>I AM SURPRISED AT THE LACK OF QUESTIONS ON PUBLIC HEALTH NUTRITION.</p>
71	<p>I am very concerned with a trend by the land grant universities to embrace basic research in the name of biotechnology at the risk of applied research and traditional Extension roles. It is a mistake to de-emphasize working with growers at a time when the technology needed to remain in business is increasing.</p>
72	<p>I am very worried about the way agriculture is going. One of the most significant things I believe is the need for more diversity in production and need for more organic production techniques. The idea of technology fix has got to stop. We need to deal with the sustainability of our planet.</p>
73	<p>I appreciate opportunity to comment. Questionnaire could be a bit better designed. Seems at times to assume that involvement of land grants would be supportive of the use of ag biotech. Doesn't clarify whether "biotech" means Recombinant DNA or broader definition.</p>
74	<p>I appreciate that you have asked my opinion, although I know it will be drowned by all the pro-biotech people who would not have a job without this federal handout. I hope the two of you will see yourselves in the same light. I feel this survey is highly</p>

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75	<p>I believe that because much of the genetic information and methodologies used in biotechnology is patentable it will slow the application to a wide range of food crops and animals. Much of the research of previous 100 + years was not patentable and the efforts of LGU was directly for the good of the greater society. In present biotech the greatest good will be to the private industry and secondarily to the public. The cost of application has increased and there are not funds in the public sector for delivery of the research results on the LGU, therefore we are in the position of having to have private industry be the vehicle of delivery. Consequently, we are losing credibility with our historic clientele and with consumers. This perceived lack of objectivity and credibility is diminishing our support within government and thus, our principal funding source.</p>
76	<p>I believe that most major advances in agriculture in the next several decades will come as the result of biotechnology research and its application. The Land grant Universities are positioned to play significant roles in this development as well as in the roles of safety, ethics, public understanding, and environmental effects related to this research. We will provide info for the private sector to develop and will be important players in the future of international health and nutrition through our rolls in this process. We should move decisively and continuously to develop and promote this technology and insure it is done ethically. We must educate the public about all potential benefits and risks that exist and develop research based information to back up our positions.</p>
77	<p>I believe that the benefits of biotechnology outweigh the risks. However, biotechnology does have risks and the scientific and corporate establishments have both tended to underplay these risks. Likewise, the opponents of biotechnology have exaggerated the risks. The major need is for a more sophisticated level of discourse than the blind advocacy that has been pursued in the past by corporations, scientists, and biotechnology opponents.</p> <p>The land grant system should not be involved in promoting or discouraging biotechnology. Instead, the land grant system is best served if it can pursue the science and let other portions of society reach a conclusion about the risks and benefits of biotechnology. If the land grant system is perceived as unfairly and illogically promoting biotechnology, then the result will be a serious damage of the public perception of scientists.</p>
78	<p>I can't believe you would make a questionnaire this long and think people would respond to it.</p>
79	<p>I did not agree that some weaknesses that you listed are actual weaknesses, nor that some of the strengths are actual strengths. This made it difficult to respond to some statements in those two questions.</p>
80	<p>I did not appreciate your e-mail telling me to STOP and answer this questionnaire right NOW!</p>
81	<p>I did not complete the questionnaire because I do not have enough knowledge of extension and the land grand system. I am submitting this so that you do not send me another reminder.</p>
82	<p>I do not have enough knowledge of the topic to complete this survey. Frankly, just because one is at a land grant does not mean one knows much about sociology of agriculture.</p>
83	<p>I do not interact with food producers at all; as such don't feel qualified to complete this survey. I also have nothing to do with biotechnology.</p>
84	<p>I fear that things will not advance until you can change people's attitudes concerning the use of biotechnology and its effects on both people and the environment.</p>

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85	I fear your results will be skewed in line with a respondent's own area of expertise. In my case, I deal with family, parenting, and intergenerational issues. My knowledge of biotechnology and its crop impacts is limited to non-existent, so the basis of my responses is neither experiential nor academic, but hearsay.
86	I feel that biotechnology has the potential solve many problems with traditional agriculture, but must overcome the inherent public mistrust of artificial modification of plant and animal natural characteristics.
87	I find that this survey seemed biased towards support of biotechnology, and an implicit bias that consumer concern is unfounded and would decrease with better education. I know many international (European) scientists working in related agricultural and environmental fields who are very concerned about the U.S. moving too fast and ignoring negative aspects. These learned scholars should be brought into the picture so that the U.S. governmental, scientific, industrial, and university administrative bodies do not delude themselves with their apparent current view that it is only an ignorant public and radical ecoterrorists who are seriously concerned over biotechnology developments.
88	I gave "ethics" low priority because most discussions of the topic I've seen have been excessively theological (will God get mad at us if we mess with nature?). But it's worth noting that the benefits of biotech won't go to the same people (or butterflies, etc.) who pay the costs or experience the risks.
89	I had some trouble answering some of the questions, especially the sections where we could not comment! For example, one statement said something like "Public concerns about safety of biotech foods are out of proportion with the actual risks." Well, yes
90	I hear there's gold on Mars.
91	I intensely dislike your survey form!! Couldn't you find a method that would display all on screen at same time??? Could not keep things lined up across screen! Why make things difficult???
92	I look forward to seeing a summary of the results whenever available.
93	I think it would be helpful to have the questionnaire examined by someone outside the agricultural/biotechnology sector. In several of the response sets I believe that the whole question was framed too narrowly.
94	I think that university scientists and ag colleges have misjudged the depth of public ignorance of and resistance to ag biotechnology applications. The ag biotech companies have, too. Starting the biotech parade with bovine somatropin was pretty stupid.
95	I think the land grant system needs to take as strong a stand as possible in support of implementing biotechnology to the maximum responsible degree possible. While this will require close working relationships with private industry, it will also require
96	I think this questionnaire has real problems. The term biotechnology as used is far to broad and even to a layperson would have little meaning. A professional would use much more precise terms to communicate about these issues.
97	I thought this survey was too long! It kept on going and going, like the energizer bunny. I think it could have been cut in half, still serve a useful purpose, and not have taken as much time to complete.
98	I welcome this inquiry into the views of Land Grant personnel. I worry that our stated neutrality on biotech is actually complicity when our role should be aggressive inquiry. I have tried to advocate for a balanced consideration of the pros and cons, while being honest about my personal opinion that the cons are of great concern. However, I have found that many scientists are not willing to consider interpretations of data that differ from their own, especially when they are so 'invested' in a technology.
99	I wish you had made more clear who is funding this effort, why, and where the results will be published - ESCOP and EMAC have some very interesting aliases.

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100	I would appreciate having the results of the survey.
101	I would just be interested in seeing the results of your survey when it is completed, as well as knowing more about how these results will be used. Thanks!
102	I would like a copy of the results. Send to rpittma@gaes.griffin.peachnet.edu  Thanks
103	I would like to see an executive summary of the survey results.
104	I would like to see the results of the study.
105	I would like to see the results of this survey.
106	I would like to view a summary of the survey.
107	I'd appreciate seeing the results of the survey
108	If possible, please e-mail the survey results to all those who the questionnaire was sent to.
109	If we are ever to achieve world peace, we must be able to provide food for all of the world's population. At the present time biotechnology is one of the keys to being able to do that. We need to learn everything possible about how to do it, what the short-term gains will be and what the long-term effects on the planet and the humans inhabiting this planet will be. . . And we don't have much time.
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111	If you promise anonymity, I am from South Dakota. This has been very interesting. Will we people in the trenches see a final report? Thanks.
112	If you were looking for a strong endorsement of the future role of Extension in this and most other contemporary arenas, forget it! There seems to be a bias in the questions in that way, which detracts from an otherwise good survey.
113	I'm glad to see you doing this survey. I personally have just grown kind of tired of the "biotech debate" because we can't seem to move past broad generalities and sweeping statements (for or against). I personally would like to see a much more sophisticated discussion.
114	I'm not sure why anyone would be very interested in what scientists think about biotechnology. That's like asking scientists what they think about science. When will we understand that, unfortunately, scientists are not the most credible experts in biotechnology?
115	In your question about discipline above, how could you possibly neglect Plant Biology! And Crop Science is NOT the same as Plant Science as most plant biologists will tell you.
116	In your questionnaire, you consider biotechnology in isolation from the rest of agricultural sciences in general and crop improvement (including agronomic practices) in particular. It does not consider how biotechnology is incorporated in the broader array of technologies. Frankly, this is disappointing and will lead to a predictable outcome: "Biotechnology is great under all circumstances."
117	It is a good tool to complement conventional plant and animal breeding, BUT the public needs to be a partner through good and fair education.
118	It is easy for the Land Grant system to get caught up in the prestige of gene splicing and creating new biotech products, without even considering impacts in a broader socio-economic format. I would oppose more money for research and education in biotechnology, if these areas are not also given high priority.

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119	It is essential that we educate the public about the positive aspects, the negatives, the ethical issues, to give them scientific fact-based information to allow them to make a rational decision. IF WE DON'T TELL THE PUBLIC THE TRUTH SOMEONE ELSE WILL LIE TO THEM AND THEY WILL BELIEVE EVERY WORD OF IT. WE ALL HAVE THAT RESPONSIBILITY, ALL OF US. PLEASE QUOTE ME!!!!!!!!!!!!!!
120	It is important to keep opinions in the LGU system diverse so that they continue to reflect the diversity of opinions current in the scientific and farming communities and the general public.
121	It is the consensus of faculty that I interviewed for a presentation to the American Chemical Society that the reputation of LGU's is in grave danger if they do not establish publicly funded and stably supported long-term centers for the study of biological risk with its faculty well rewarded for their work in the public interest.
122	It is way too long.
123	It takes longer than 15 minutes! Be honest or make it shorter!
124	It took 14 minutes to complete.
125	It was hard to answer some questions because I couldn't tell if you were asking for my personal assessment or my assessment of other's feelings.
126	It was too long and many questions were impossible to answer in this format.
127	It would be good to see the final summary at some point
128	It would be useful to have a response category that indicates lack of information on the part of the respondent, or something similar.  Some of the questions provide a too restrictive response option, not broad enough.
129	Item 9. Lack of benefits for consumers --has two interpretations and therefore two different answers. If you interpret it as the concern being based on this as a fact, then it would be a strong concern. But if you discount the validity of this being the fact--that there is a lack of benefits--then such a concern is baseless and of little concern. Item going in two directions at the same kind cannot be answered validly or reliably. Just wanted you to know that this item has such a problem.
130	It's interesting that among the disciplines that are listed above, you list few, if any, environmental and natural resource sciences. Yet programs in forestry, fisheries, wildlife, etc. exist in many Ag Experiment Stations and Extension Services. Does that say something about who in ESCOP-ECOP will make decisions and set policy regarding biotech?
131	Just another stupid survey. "Where's the beef?" Or should I say, "Where's the 'Franken-beef'?"
132	Keep the FEDS and the News Media out of the loop until all research is done. One false or misleading story does more damage than 100 factual stories. The Feds can't keep a secret - enough said.
133	Land grant institutions must expand efforts to meet needs of all constituents in states not just agribusiness and producers
134	Land grant universities do have other things to worry about besides biotechnology.
135	Land grant universities need to do more to educate the public about agriculture. Once people have a better understanding of how agriculture operates and its challenges, then they will also appreciate the current and future benefits of applying biotechnology to agriculture.
136	Land grants must make a more positive image  their interconnection with NRI is vague their connection with extension also separately run as is their oversight of the research projects  how can they be made more accountable?

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137	Leadership in agriculture must step up its efforts to critically evaluate its allocation of resources to traditional agriculture to attain a balance between maintenance of obsolete infrastructure and research programs and competitive grants programs for b
138	LGU will need to identify and work with new clientele (industry), which will force it to change emphasis and acquire applied science (in the industrial sense) capability that it really does not have. Most LGU administrators see engineers as service support, not those who will figure ways of implementing solutions on an industrial scale.
139	LGUs should advocate for the public, and the USDA should do research that benefits the public. Both have no credibility with the public when they sell out to corporate ag. When the public realizes the LGU are supported by the ag industry, LGUs will lose the support of the public and cease to exist.
140	Make it easy to save and return to this screen
141	Many of your questions are leading, so the results cannot be valid. For example, responses to the point "Opportunity to remain relevant" assumes that the present condition is "relevant," which may or may not be the case, and that by taking certain actions, presumably related to biotechnology, only then can they remain relevant if this is deemed important. The question should be whether addressing all these aspects of biotechnology is required for Land Grant Universities to be relevant. Another leading question relates to the sections "Views on the impacts of Biotechnology." Answering the importance of "Question 1. Lower costs to farmers" is misleading because it assumes that biotechnology will lower the cost. Of course it is important to lower the cost, but it is not valid to conclude that biotechnology can do that.
142	MN is a member of a multi-state biotech ed and research project consortium funded by USDA. Walt Fehr, Iowa State U., is the P.I. You may want to contact him for details.
143	More consumer information needs to be made a priority!
144	My biggest concern is that the needed research will not be funded--we need long-term studies on ecological risks that look at multi-disciplinary aspects. These do not produce quick, definitive results. But without these, we may headed into dangerous territory!
145	Need to convince the media of the gains from biotech. They may too much attention to the vocal few. In the long run farmers will benefit little. Profits will go to industry and consumers get cheaper food.
146	Next time please tell us how long the survey is likely to take.
147	No
148	No
149	No
150	No
151	No
152	No
153	NO
154	NO
155	No
156	No comment
157	No!
158	No.
159	No.
160	No.
161	No.

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162	NONE of the "benefits" you listed in the question asking benefits to be rated has been documented conclusively. All are CLAIMS made by the industry and their hired researchers, but nearly all biotech introductions so far have increased costs and failed to provide the claimed environmental and safety benefits. Check the literature on follow-up research on impact of biotech.
163	Nope.
164	On the question of how important are the following issues in biotechnology I was uncertain if it meant how important to me or how important I think they are to the general public. I answered them as to how important they are to me.
165	Our past experience with pesticides such as DDT should be a caution to an overly simplistic view of the environmental impacts of new technologies. Therefore an important aspect of the land grant mission in this area should be continued monitoring of these impacts on non-target organisms, especially insects and weeds
166	People in land grant universities appear to have an over abundance of questionnaires thrown at them, :)  We wonder if any of these questionnaires really matter and if any one actually listens to anything that doesn't have \$\$\$\$ attached. Cynism is higher than ever.
167	Perception seem to be reality. The public has a poor perception of Biotech.
168	please be sure to share results w/each state.
169	Please bear in mind when you interpret these results that answers could vary based on whether or not you are thinking long-term or short-term. Also, some answers may be biased based on whether or not things continue the way they are. We are getting way too political in our approach to science. We chase the biotechnology dollars much too hard for the value we get. We tend to create centers and institutes where we can segregate the molecular biologists. This is not even the current ag. industry model. Whatever we do, we must maintain our position as an unbiased source of information. We must recognize the consumer. We must break up an old and stagnate rewards system and develop non-Newtonian management organizations that deal with problems, not with disciplines.
170	Please include nutrition in your listing of "highest degree in" Food Science and Nutrition generally go together at Land Grant Universities.
171	Please make sure the results of this survey are widely distributed among the LGUs AND the general public
172	Please publish the findings and associated recommendations! This is important.
173	Please send me the results: awalzer@umn.edu
174	Please share the results.
175	Please support biotechnology for the common man.
176	Post the results in a downloadable presentation we can use for Outreach work
177	Potential uses in non-food areas needs consideration, e.g. vaccines, bioterrorism response.
178	Provide the consumer all the information, as there is nothing to hide. Let people make up their own minds and it will all work out.
179	Public funding of research needs to be increased to regain the leadership role of research for the good of society.
180	Questionnaire is too long.
181	Questionnaire took too much time to complete and give thoughtful answers. It's no wonder I didn't respond on the first go-round.
182	Release the results of your survey on a Web site, and let the same people you contacted via e-mail about the results posting
183	Roundup ready lawn seed would convince consumers that risks are low.

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184	Scientists need to do a better job communicating the importance of their research to the general publics. Issues related to food safety, nutrition, phytoremediation and reduced pesticide usage should be the primary focus of biotechnology, not just increasing yield.
185	Section 10; question 5: A "strongly disagree" answer has two interpretations: 1. the future of US ag is good 2. the future of US ag is bleak With current laws and corporate ownership of biotech and efforts by these companies to limit their tort liability for "mistakes", I would say the future of ag from biotech advances is bleak.
186	Section on Impacts of Biotech is biased in wording and presumes that biotech is a priori a benefit. Therefore, validity of survey is questionable. Better wording, e.g. 1-5 scale relate to potential benefit, rather than importance per se.
187	See above comments
188	Since my area of expertise is in ornamentals, I am not quite sure why I received this. None the less your welcome too it.
189	Some of the answers would depend on whether developed vs. developing markets (consumers) were considered. In others my personal views are immaterial to my role as a researcher and educator.
190	Some of the questions are very difficult to complete, for the answer requires assumptions about the current state of biotech, or an idealized version
191	Some of the questions I had to answer as neutral when my feelings are definitely non-neutral. For example, patents are necessary for innovation and marketing, yet the PTO is issuing patents inappropriately. Thus I agree with both the policy of patenting LGU research and with those who criticize the consequences that patents on ag biotechnology have had in recent years. On the industry-LGU linkages section, I answered from the standpoint of current linkages being strong (even excessive at UCB & UCSD). Also, we do have to accept non-zero risk, but the question you ask is used in industry as an excuse to avoid doing responsible science beyond the molecular discovery/product development phase.
192	some of the questions were kind of like groucho's "have you stopped beating your wife?" also, the screen was not wide enough using netscape to see the questions and the possible responses at the same time, which made it difficult to complete.
193	Some of these questions are quite leading. I tend to agree with the tone, but why assume the opponents are so stupid that they will fail to recognize when questions are phrased or sufficiently ambiguous so as to prompt one answer?
194	Some of these questions do not pertain to the Land Grant System and are weird. I do not know what the answers would mean.
195	Some wording of questions reflects bias toward benefit of biotechnology. This is somewhat a surprise coming from a university-based survey. It casts some doubt in my mind regarding the impartiality of the study. I do not consider myself anti-biotech and embrace its advantages in combination with classical techniques in breeding for disease and insect resistance.
196	Sorry I couldn't complete all of it -- ran out of time. Hope this is useful anyway.
197	Statements can have two opposite interpretations: For example, a statement that the Land Grant University should give greater attention to biotechnology can mean more attention to its perceived positive effects or its perceived environmental or social effects. the university must do both.
198	Strategic assessment Q2 - I think that it is vital that the universities are not perceived as being in the pay of companies for this role. We need to very carefully consider how corporate sponsorship of research influences our credibility.

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199	<p>Strong need to counter the view that regulation is needed because of perceived problems...in most technologies, regulation not imposed until we become aware that problems exist. Regulations come as a result of experience that dictates a need. Why is it different with biotechnology? Most of fears and concerns are theoretical and not experientially based. This should be major segment of any educational program and message should be emphasized in interactions with the public.</p> <p>Debate about corporate control of agriculture should be a major focus. This may not be what is desired, but we must face reality. Small family farms are not the future of agriculture...whether this is preferred or not.</p>
200	Survey clearly takes longer than 15 minutes!
201	Survey is too long - it will affect your response rate. I feel you misled me about the length of time it would take.
202	Thank you for spending the time and resources to conduct this survey. I expect the results will be very important in developing policy.
203	Thank you for taking the time to find out what the folks in the LG system think on this critical issue.
204	Thank you for the opportunity
205	Thank you for the opportunity to participate.
206	Thanks for asking me to participate. As a participant, I would like to receive a copy of the report when it is available.
207	<p>Thanks for conducting the survey.</p> <p>I did not fill in the section on potential benefits because we don't really know for certain if any of the benefits will accrue over the long-term. The section was written in a leading and biased way.</p>
208	Thanks for developing this; we need to increase awareness of what LGU's have to offer in this important area.
209	Thanks for doing this.
210	Thanks for doing this. I'll be anxious to see your results.
211	Thanks for taking this on.
212	Thanks for the input opportunity!
213	Thanks for the opportunity to have input.
214	Thanks for the opportunity to participate.
215	Thanks for your undertaking in addressing these important issues facing agricultural scientists in our Land Grant Universities. many of our faculty are uncomfortable about addressing some of these topics
216	That was a long questionnaire, and I'll be late for dinner, but the results should be useful.
217	The "unbiased" aspect of agriculture research in LG Universities is our greatest asset. Corporate liaisons (funding) threatens our credibility.
218	The diversion of resources formerly used for crop production research into biotechnology "for hire" will cripple the ability of LGU's to provide relevant data to the farmer in order to enrich the biotech industry. I have no problem with Monsanto developing roundup ready crops to sell more roundup, my problems is LGU's spending millions of tax dollars to equip labs to obtain \$100,000 grants to help them.
219	<p>The final products will be delivered by the private companies. After investing millions of dollars in developing a product, the companies will try to market it even if it is not 100% safe.</p> <p>The government should examine the safety issues and not leave it up to the companies for testing it. There are lots of people in other countries who will like to exploit biotechnology and harm others.</p>
220	The future of human society on this planet demands the heavy participation of biotechnology. Simply put, biotechnology is the future of mankind, like it or not.

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221	<p>The general public is poorly educated about biotechnology and believes every sensational news report that is negative. They have a poor understanding of science in general. We need to educate the public at an elementary level.</p> <p>I also believe helping producers use CURRENT knowledge would have a tremendous impact on agriculture WITHOUT any new technology!</p>
222	<p>The genie is already out of the bottle but if serious problems arise that affect humans, animals or the environment, this entire industry from top to bottom will fail to deliver the benefits it is capable of. Anyone working in biotechnology, including industry personnel, should invest two weeks of their time to talk to the public and to government personnel in Western Europe and really get a feel for the concerns and problems that they will face.</p>
223	<p>The history of pesticide development is full of materials that were "completely safe", environmentally benign, "great for the farmer and the consumer", etc. These products were later found to be a lot less safe and efficient than we were all led to believe by the agricultural industry. It is amazing to me that highly qualified scientists fail to see the parallels between the new biotech crops and all the different classes of insecticides that preceded this new one. In the past, the Land Grant Universities were able to study the harmful effects of these pesticide classes because the researchers in these institutions had funds that were independent of any industrial support. I am afraid the system is so completely dependent on private industry money that its ability to "police" this same industry has diminished considerably</p>
224	<p>The issue of using biotechnology to improve agricultural products is such an enormously important issue. It requires very careful examination, not only in designing experiments, but also in examining the short term and long term effects. These effects that need to be monitored may not always be those anticipated, and that is why an interdisciplinary team should examine the research and review the proposed research according to the NIH guidelines. I am aware that this is required by all research institutions, but yet experiments are proposed, approved and conducted where some outcome had not been anticipated. I believe the public is leary of GMO foods because of these unexpected outcomes. As members of the scientific community, we have to do a better job and not just be protective of our own "turf", but be open to criticism. Most, if not all criticism, may be justified</p>
225	<p>The key to facilitating public understanding of biotechnology is through good speakers who have their facts straight, who know how to present in public, who understand the fine points of debate and how to deliver ideas</p>
226	<p>The Land Grant University system should provide a public interest counterweight to industry interests in science research (We need government sponsorship for research in order to play this role). Even more important, the universities should lead in efforts to bring greater public awareness and input into decisions about research.</p>
227	<p>The LGS hss cannot become too cosy with the private sectors as our goals and missions are different. Private sector support can re-direct the emphasis of LGS research too easily with the offer of funds for operations, whereas the very substantial funds for the LGS are tied up in the infrastructure, personnel resulting in the loss of research flexibility at LGS Universities. Too few private sector \$ alter research and missions at LGS.</p>
228	<p>The most frustrating feature regarding biotechnology is the extent to which it has been over-sold by academics. This is expected behavior for industry, but has serious long term implications for academic institutions.</p>
229	<p>The order of the response alternatives with 1 through 4 on the top line and 5 on a separate line and beneath the 1 may cause a response bias.</p> <p>Thoughtful responses take MUCH longer than the 15 minutes stated at the beginning.</p>
230	<p>The questionnaire assumes the inevitability and desirability of biotechnology in agriculture. I am not convinced of either.</p>

## ESCOP – ECOP BIOTECH SURVEY – Topline Results

231	The questionnaire was too long to get a large proportion of people to respond. I persisted only because I feel this is an issue that is very important to the future of agriculture as we know it at LGUs.
232	the questionnaire is too long
233	The questionnaire was too long and too repetitive.
234	The questions on strengths and weaknesses assumes impacts of biotechnology that are still open to questions and research
235	The questions related to LGU's seem to suggest a large conglomerate that is slow to change and/or resistant to change. Cooperative Extension responds and is proactive in many cases. Wording could have been more positive?
236	The section on "How important is each of the following concerns ..." can be interpreted 2 ways: How important I personally believe it to be OR how important do I believe it to be in the public psyche. One is my personal perception the other is my perception of the public mood. Both interpretations are essential but be careful how you report that section.
237	The section on views on the impacts of biotechnology was biased. I would argue that many of those potential benefits will not be achieved. For instance, lower cost to growers. It is far more likely that one cost will be traded for another cost or the cost will go up. We only have to examine the pharmaceutical industry to see an example of this. Many would argue that saying biotechnology will promote environmental protection or sustainability is double think (i.e.Oxymoron). We need to be a little more realistic and wholistic in looking at the short term of what this technology can do for us.
238	The special position granted to Land Grant Institutions with respect to certain federal grant programs in areas such as USDA appears, in my mind, to be discriminatory particularly with respect to other public institutions that have agricultural/forestry mandates. This needs to be eliminated so that all compete on a level playing field
239	The term "biotechnology" was used in this survey in a way tilted toward "the activity of making a GMO food." That is such a small consequence of biotechnology as it effects the overall goals of LGUs. Your survey could be improved by defining "biotechnology" in a limited way beforehand.  . 'Commodity' is an organizational and funding principle within the USDA that greatly reduces the power of LGU System.
240	The university-corporate links questions missed the point. Exchanging resources is not the issue, it is the need to maintain an absolute scientific integrity and neutrality of university-based research that is essential.
241	The wording of the questions in this survey appears to be designed to always put answers at the extremes (1 or 5). Was this the intended design?
242	There is no doubt that much of the public's perception of agricultural biotechnology is derived from the news media and their misguided attempts at informing them. There are so many special interest groups such as Greenpeace that make a living by stir
243	There should be no rush to introduce biotech food or crop to consumers until appropriate and adequate human and environmental safety tests are completed.
244	This is a very important area of investigation. Thank you in advance for taking on the responsibility of compiling this information and using it responsibly.
245	This is a very poor questionnaire. Many of the questions assume values and can easily be interpreted in several different ways.  I doubt very much if you will get valid data from it (aside from the fact that it's not being done according to any valid principle of scientific pooling. But, I'm sure that won't prevent you from publicizing your results and interpreting them to suit your ends.  I'm very disappointed that an academic group could be manipulating a survey such as this, either

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	through ignorance or more malign motivations.
246	This is an extremely important issue and the Land Grant Universities may be in the best position to bring reason to the public debate.
247	This is important work. Be SURE to involve the consumer advocacy community. Don't present them with a finished product to simply accept.
248	This is way to long. The questions have inconsistent trends that can be misleading if the reader is not careful.
249	This questionnaire has too many questions where part of a statement is true and another is not. Some are unanswerable. For instance, regulations should represent the best science that addresses consumer demands. How can you say one but not the other? I recognize the false dichotomy of the question from some propaganda briefs, so seeing it here makes me plenty suspicious!  Thje use of "Increased..." is difficult. My instituion may be doing a lot, so further increase in a good thing may not be appropriate.
250	this questionnaire was very much too long
251	This questionnaire seems slanted towards promoting biotechnology
252	This survey is rediculously long and irrelevant to the hospitality field.
253	This SWOT survey took longer than the advertised 15 minutes!
254	This took more than 15 minutes!
255	Throughout the USA there are many good agricultural/biological engineering departments with great potential for contributions to the biotech movement. Yet, not many of the above questions dealt with engineering issues. I think I may know why. In looki
256	Time will solve many of the current fears concerning biotechnology generated products. As the public sees that problems do not develop from these products. Responsible action by public and private sector research is, however, essential.
257	To have an impact on the political decision making process and indirectly on continued financial support, LGU have to reach urban audience as a science based advocate of biotech research and development
258	too long
259	Too long. You should pay me to complete this form.
260	Too many questions
261	Too many questions.
262	Too many statements in this questionnaire are blanket statements that I have a hard time answering because for some biotechnological innovations I agree and for others I disagree!
263	Too much emphasis is being placed on biotechnology at the expense of practical/applied research and extension that address the current problems and concerns of agricultural producers. Many of the problems do not lend themselves to industrial support since products are not involved and the companies do not see an exonomic return.
264	Transgenic issues are also very important in the forestry arena and are equally deserving of attention.
265	Under the section of possible uses of biotech, market access will be a key driving force among producers and this was not explicitly listed.
266	Use the results of this questionnaire responsibly!

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267	Very few people that I've met trust the Land Grants on biotech or almost any other topic of acute concern. This is our own fault.
268	Very good questionnaire.
269	We are in a war of attrition against our collective ignorance. It will take a long time, but biotechnology has so much promise that it will eventually be fully integrated into our lives and work.
270	We are moving ahead rapidly in our teaching, research and extension programming in biotechnologies. Especially in transgenic animal research, cloning and stem cell research in non-humans. Plant transformation and transgenics are developing as well. We are very interested in moving the world ahead in biotechnology development by doing our little parts in teaching, research and extension/outreach.
271	We are moving ahead rapidly in our teaching, research and extension programming in biotechnologies. Especially in transgenic animal research, cloning and stem cell research in non-humans. Plant transformation and transgenics are developing as well. We are very interested in moving the world ahead in biotechnology development by doing our little parts in teaching, research and extension/outreach.
272	We definitely need public institution involvement in biotechnology issues and research.
273	We desperately need impartial, but very knowledgeable educators from LGUs, that can provide accurate information and help people weigh the risks and rewards from this technology.
274	WE do need a balanced research on benefits and risks
275	We have a choice-- 1) create an "image" for biotechnology via mass media 2) create an "impact" for biotechnology through education --when the next unanticipated consequence is discovered will the "image" or the "impact" be most useful in forming the public's perceptions.
276	We needed to have this discussion ten years ago!
277	We tend to vastly underestimate the importance of public acceptance. The usual means of reaching the public, ie. media, consumer and environmental groups, are biased against new technologies and US industry. Therefore, the job of public education and of winning the above mentioned groups over will require intense and innovative efforts--I don't know if LGU's have that expertise.
278	Well constructed questionnaire on an important topic!
279	Well designed questionnaire.
280	What are the site-specific and regional impacts of biotechnology in agriculture and food production?
281	What good will this survey serve?
282	When considering the future of the Land Grant System, the priority should be to follow the system's mission, rather than positioning the system to take advantage of one or another funding source, even though ethical considerations show it contradicts the values of the Land Grant System. It is sad the USDA has already espoused biotechnology, and funded the research to create it, and did not support research into consequences. This in itself is violation of the Land Grant's mission, and compromises any "education" the system might embark upon.
283	Where will we be able to see the results of the survey?
284	While we waste a way the hours, weeks, months, years, and decades worrying about biotechnology in agriculture today--we are missing the big picture. Agriculture is how the world feeds itself. Agriculture is also the basis of every great civilization. Agricultural productivity increases are not keeping up with human population growth. Today we must develop the technology to avoid famine twenty-years from now. We should get past vague fears of un-proven possible environmental damages--and get on with developing technology able to answer the challenge of feeding the world.

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285	why did you not say we would be sent the results of the questionnaire? I would like it please. Barry Wilson, Animal Science, UC Davis. Thank you for your efforts and forgive my sometimes terse and thus what may be perceived as rude comments.
286	Why have you been so slow to address these issues?
287	Why wasn't horticulture listed as one of the categories of disciplines? It will be a primary discipline that is involved in the future for GMP's, especially in the area of vegetables and fruits.
288	Will the results of the survey be announced to participants?
289	Will we be able to see the results of this survey?
290	Will we receive the results of the survey?
291	Will we see results of survey on web?
292	yes - it ignores some salient research about the public's understanding of science generally that, until addressed, will mean that discussions about biotechnology are based on ignorance and misconceptions.
293	Yes, Land grant universities have been employing "gene jockeys" at the expense of filling traditional positions in production, plant physiology and biochemistry. Huge investments in biotech industries will make university contributions much less significant due to the patenting issues which also stifle valuable publications on the issues.
294	Yes, the field of "Home Economics" is usually called Family and Consumer Sciences. Do you have any FCS reps on your advisory board for this survey?
295	Yes. I am appalled that we scientists at land grant universities have chosen to chase dollars at the expense of good science but then we drape our greed as "technology that will help farmers." Beginning economics tell us that technological advances have not resulted in richer farmers or a better environment. So, let's actually be scientists for a while and look at this technology for what it is: technology that can be used wisely or unwisely.
296	You have given too much emphasis to farmers. The potential benefits of biotechnology apply to a much broader portion of our society. Otherwise, your survey is excellent.
297	You need to consider curriculum revisions to accommodate the increased presence of biotechnology and its probable growth.
298	You need to very clearly define exactly what you mean by 'biotechnology'
299	You should have defined biotechnology.
300	You should have defined what you mean by biotechnology...given some examples.
301	Your answers may be skewed by the balance of folks asked to respond. You will probably learn the most by understanding the outliers rather than those who follow a predictable pattern.
302	Your committee, like many agricultural committees is top heavy with people who are not relevant to the questions being asked. In other words, too many administrators, directors, deans and deanlets and not enough hard scientists, in particular those who actively work in biotechnology and understand the science. This task force is an excellent example, as it is chaired by a rural sociologist, with assistance from an agricultural economist and a deanlet. There are few scientists of note on the committee and fewer still with outstanding credentials in plant or animal biotechnology. This task force illustrates the major problem facing agriculture today, lack of strong leadership. I feel that my words will not make any difference, but I needed to say them anyway.
303	Your question: "How important is each of the following concerns that have been raised about the use of biotechnology..." is ambiguous. I have answered it as if it were asking: "how legitimate are these concerns in your view?" If you meant it to ask: "how important (to the progress of biotechnology) is the general public's concerns with these issues?" then you would need to flip my responses to their mirror image.

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304	Your questionnaire appeared biased in favor of biotech. Questions about the importance of land grant universities continuing to pursue applied, non-biotech, research and Extension would be important. Biotech is coming at the expense of more traditional programs, not as a complement to them. I don't think the public or farmers fully realize this.
305	Your questions about 'private' industry leave some ambiguity in regard to whether they also cover public companies (e.g. Monsanto). I presumed you meant all industry, as opposed to private companies only, but not everyone may make that interpretation.
306	Your questions on patent issues were poorly designed. The issues is not whether patenting is good or bad, but legal or illegal. The answer depend on the laws as written and interpreted by the courts. The decisions to date say that patenting or (as well as protection by PVP or Plant Patents) are indeed legal. Once that is shown, the next question one can consider is about the possible effects of patents on agricultural system.