ABSTRACT:
This study is focused on the habits of the Brazilian farmers that access the Internet for searching information to their economical activities. The main goal is to understand how come those agents of the agribusiness use the formal and informal (personal contact) means of communication, as well as the functions that each of those means accomplish to this public. In other words, it intends to identify the channels of communication of major importance to farmers (used more often, considered the ones of more credibility and preferred among them). That is possible by means of a questionnaire sent exclusively by e-mail, answered by Brazilian farmers. The motivation of the study is to contribute to make the communication more efficient to those who work on farms. That can produce benefits to the communication companies and to the public. The results show that the Internet is the mean of communication more often used and preferred on the process of searching information about the agribusiness among Brazilian farmers. The personal contact, not considered in the valuation about preference, appears in second position in the ranking for intensity of use. On the other hand, the radio, regional press newspapers and newsletters of class entities were the less consulted and the last ones in the ranking of preference.

1. INTRODUCTION
More and more, farmers need information about the “local” and the “distant”, at the same time, to better conduce their business. The information’s exchanges among members of the sector have become more necessary, but also not enough to supply the decisions. As all the areas of knowledge, in agribusiness, integration is the key-word. In this case, integration of formal– diverse – and informal means to guide the actions.

Given the growing demand for specialized information, translated into effective demand for many agribusiness agents, it is pertinent that the communicators put more attention on make their products better to this public. For that, the first step is to understand the current habits of those professionals in the search for information. It is important, thus, to investigate the inter-relationship that occurs between information gotten by personal contact and others come by informal means – traditional (press) and new ones (on line). This study refers exclusively to the dynamic of the farmers.

The base to the interferences on the farmers’ demand is the sample of 179 questionnaires answered by agents of all the segments of the Brazilian agribusiness, in the second quince of
January 2004. Of this total, 19 percent or 34 questionnaires correspond to the sample of farmers in this research.

2. METHODOLOGY

The primary research applied to the agents of the agribusiness have intended, above all, to identify the more often used means of communication, the more trustable and the preferred ones by those professionals, in the process of accessing specifically information about the agribusiness. Agents were also questioned about the issues that consider more interesting and others that could receive more attention by the media.

The research was done by means of a questionnaire sent and received by e-mail. The questions were formatted in Excel, in order to facilitate the answers tabulation.

The questionnaire was sent to hundreds of collaborators of the research projects of the Center for Advanced Studies on Applied Economics (Cepea/Eaalq-USP) about the markets of cattle, swine, poultry, milk, coffee, citrus, soybean, corn, cotton, sugar, ethanol and inputs (used in agribusiness).

The process of sending the questionnaires with 12 questions and some more items to make possible to identify the interviewed persons’ profile was done by the e-mail of the respective teams of Cepea in the third week of January 2004. The answers were received, basically, up to the end of that month. Excluding some questionnaires that presented technical problems, the research compiled answers of 179 professionals.

3. Farmers of the sample’s profile

The mean chosen to get in contact with the farmers - e-mail - turned users of Internet 100 percent of the sample of this study. The public was select in that way on purpose to make possible to get opinions of professionals that were inclusively users of on-line means of communication, in order to observe the relationship between traditional and new means of communication.

Considering the PNAD (National Research for Domicile Sample, of the IBGE - The Brazilian Institute of Geography and Statistics), however, it is know that only 11.4 percent of the Brazilian population had Internet at home in 2003; 15.3 percent had a computer at home.

In relation to the introduce of the Internet in the agribusiness sector, one of the few available studies was realized by Vera Lúcia F. dos Santos Francisco, of the Institute of Agriculture Economy (IEA), liked to the government of the sate of Sao Paulo. According to FRANCISCO (2002), the farmers’ participation in Brazil (not necessarily residents in the rural area) that use of the Internet would be around 4 percent in July 2002.

In the state of Sao Paulo, the researcher points out that around 8.5 percent of the total farmers, what would represent 24 percent of the cultivated area in the state, used the Internet to their activities up to the same period (July 2002). In July 2001 and July 2002, the number of connected farmers would have increased 27 percent.

In recent researches, with data of June 2003, FRANCISCO (2003) analyses the factors that would have motivated farmers of Sao Paulo to use the Internet in their activities. In this study, it is forecasted that, in June 2003, farmers of almost 28,400 unities of agriculture production (UPAs – in Portuguese) in Sao Paulo were using the Internet to the agribusiness – it would account to 10.2 percent of the UPAs. Farmers of other 47,200 unities (farms), which would account to 17 percent of the total of the state, would have declared the intention of using the Internet to their activities. The same study informs that, in 2003, almost a half of the U.S. farm-
ers accessed the Internet; 30 percent of those farmers used it to the agribusiness.

In a general way, according to the Getulio Vargas Foundation, based on IBGE data, in March 2003, 0.98 percent of the residents of the rural area had a computer at home, while the average in Brazil was about 15 percent and, for the state of Sao Paulo, 21.8 percent (O Estado de S. Paulo, 04/11/03).

Considering that the number of farmers connected to the Internet is still reduced in Brazil, the technological condition presumed on this study means that it is represented the portion that detain higher technological level in comparison to the average, in quantitative terms. It also is knew that there are farmers, even in a reduced number comparing to the average of Brazil, that also use very often the sophisticated resources of communication in their activities, as news’ agency via satellite.

3.1 Level of scholarship

The scholarship level of farmers that answered to the questionnaires is high in comparison to the average of Brazil: 53 percent have a graduate diploma (18 interviewed persons), 38 percent have a postgraduate diploma (13 persons) and 9 percent (3 persons) had only completed the high school. Probably, this group does not represent a quantitative average of the scholarship level of the Brazilian farmers. On the other hand, it is still been a viable sample, considering that one of the goals is to analyze the interactions of the traditional and the new means of communication (on line) in the routine of the users of agribusiness information.

Only to localize the level of instruction of the samples face to the Brazilian reality, the most recently edition of PNAD, of the final of September 2004, referent to 2003, shows that 24.9 percent of the Brazilian population would have 11 years or more of formal study, 10 perceptual points more than in 1993.

3.2 Sectors present in the sample

The sectors of cattle and milk are the most represented, with 26 and 18 percent of the total of farmers in the sample. Following, soybean and corn appear with 12 percent, before coffee and swine. Cotton, citrus and sugarcane farmers show up with lesser expression.

3.3 Size of the farms and localization of the farmers’ residencies

The farm’s size moved from 55 to 36 thousand hectares. In order to avoid arithmetic average excessively distorted, it were calculated two averages: one grouping farms sizing up to or equal to 1 thousand ha – those represent two thirds of the sample – and other sizing more than that mark. The first average was about 350 ha and the second, around 9,400 hectares.

Most part of those farmers (55 percent) is localized – according to the phone code area – in the state of Sao Paulo; about 12 percent, in the state of Minas Gerais; other 9 percent, in Parana; 9 percent in Goias and also in Mato Grosso; 3 percent, in Mato Grosso do Sul and other 3 percent in the state of Rio de Janeiro.

4. RESULTS AND DISCUSSIONS

It is important to make clear that in this study the Internet is considered the whole conjunct of information gotten on line, excluding the news’ agencies, even the most agencies works on line.

That way, the Internet is represented by clippings sent by e-mail and by sites of open or locked content of institutes of researches, class entities, government offices, consulters, means of communication with a physical and/or only electronic version, future mercantile exchange
markets and by addresses merely commercial that are limited to retransmit contents.

The tabulation of the values from zero to ten attributed to each mean of communication about the use, preference and trust was done in a way that could permit to obtain the arithmetic average. It was specified in the questionnaire that the grade zero would represent “not using the mean of communication” for obtaining information about agribusiness.

Table 1 – Average values attributed by farmers about the diverse means

<table>
<thead>
<tr>
<th>Mean of Communication</th>
<th>Use</th>
<th>Trust</th>
<th>Prefer</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Newspaper</td>
<td>6,13</td>
<td>6,7</td>
<td>6,10</td>
</tr>
<tr>
<td>Regional Newspaper</td>
<td>4,76</td>
<td>5,6</td>
<td>5,04</td>
</tr>
<tr>
<td>Class Entities Newsletters</td>
<td>5,50</td>
<td>6,25</td>
<td>6,12</td>
</tr>
<tr>
<td>Specialized Mag</td>
<td>7,21</td>
<td>7,29</td>
<td>7,67</td>
</tr>
<tr>
<td>Specialized Newsletters</td>
<td>7,21</td>
<td>7,77</td>
<td>7,24</td>
</tr>
<tr>
<td>TV</td>
<td>6,11</td>
<td>5,84</td>
<td>6,30</td>
</tr>
<tr>
<td>Radio</td>
<td>3,18</td>
<td>5,12</td>
<td>4,19</td>
</tr>
<tr>
<td>Internet</td>
<td>8,23</td>
<td>7,38</td>
<td>8,21</td>
</tr>
<tr>
<td>Personal Contact</td>
<td>7,64</td>
<td>7,41</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Data of this study (2004).

To the farmers of the sample, the Internet appears as the mean of communication more often used and also the preferred, although, in the item trust, the first in the ranking were the specialized newsletters, specially the weekly ones. The information’s exchange with persons of the same sector is also frequently used – also considered trustable, even not so much as the specialized newsletter.

In the item “trust”, the Internet and the specialized magazines appear very close to the interpersonal communication, dividing a second position, behind specialized newsletters. If the option was to use averages, the four means of communication would get the grade next to 7.5 percent (in a scale from 1 to 10) when it comes to trust. (Table 1)

In the question about preferred means, it was excluded the option “personal communication” and, once more, the three formal means that head in trust appear together. In the item “preference”, however, the Internet gets an advantage over the other two ones – newsletter and magazines.

4.1 About the frequency of use and the preference

The Internet heads the ranking of the more often used means of communication, with a good advantage from the second one, the personal communication. The specialized newspapers occupied the third position, with a 7 in the scale about the intensity of use. Magazines reached only a satisfactory average – of 6.35 -, and the press newspapers of national circulation occupied a position a little bit more uncomfortable, with average 6, showing that they are not used very often in the processing of searching for agribusiness information.

The TV passes over the radio and also the regional press newspapers in the item of frequency of use and also when it comes about trust. When the questions focus on the preferred channel of communication, the TV gets a better position face to the specialized newspapers of class/cooperatives entities.

The traditional audiovisual means, famous for their diffusion in the rural communities, seem to be means of low efficiency for this public of high instruction (of this study). For other groups, especially for those of low instruction, however, it is important to call attention to the potential of those means.
The regional press newspaper appears almost in the end of the ranking about the frequency of use, behind of the radio, which is, by the way, very depreciated for the public of this study. The radio got the grade 3.4 for intensity of use for researching information about the agribusiness, and 5.12 for trust on its news about agribusiness, and 4.7 for preference. About the regional press newspapers, it is important to consider that all the questions refer specifically to agribusiness information and that the low position of that mean of communication, as well, refers to that type of content.

**Graphic 1 – Use of each mean to get agribusiness information**

Source: Data of this study (2004).

**4.2 Credibility**

To analyze the credibility attributed to the means of communication, it is proposed the division in two groups: one involving the ones that got best positions on the ranking and other, to the remainders. Specialized newsletter, personal communication, Internet and specialized magazines are in the first group, with averages above 7, but under 7.8 (specialized newsletters), while the national press newspaper, TV, regional press newspaper, class/cooperatives entities’ newsletter and radio are part of the second group, with grades for credibility between 5.1 (radio) and 6.7 (regional/national press newspapers).

Those numbers make possible to understand that all the agribusiness information’s suppliers have too much to improve to guarantee good credits for credibility – even considering that a good part of the activity gets the trust of the public.

**Graphic 2 – Credibility attributed to the means used to get agribusiness information**
5. CONCLUSION

The Internet is the mean of communication more often used and preferred in the process of searching information about the agribusiness among Brazilian farmers. The personal contact, not considered in the valuation about preference, appears in second position in the ranking for intensity of use. On the other hand, the radio, regional press newspapers and newsletters of class entities were the less consulted and the last ones in the ranking of preference.

The low appreciation of the regional media by the public coincides with the reality observed empirically in the Brazilian companies of communication. Producers of information of those means, in general, receive low salaries and are not stimulated to seek for improvement.

Face to this deficiency of the regional media, “the lack” of information tend to be supplied basically by the personal contact, as the national press newspaper – especially those specialized on economy -, which normally count to better reports and editors, are focused on macro-issues. To be possible to assimilate the content of the big media publish, the capacity of the readers have to be considered.

In the item credibility, the specialized newsletters head the ranking. Research centers, consulters, and governmental offices – especially the weekly ones, produce this material.

It is important to consider that the advance of the on-line does not invalidate the taken that the professional repertory about their activities is still been formed by the conjunct of the means of communication, which apply complementary functions.

The enthusiasm with the on-line means is also an alert to represents of farmers, government and other institutions focused on small farmers. It would be recommended that they work hardly for the popularization of the Internet among their public, so new technologies of information does not consist only on factor of distance between those who have reached economic consolidation and others who are trying to “survive” in the agribusiness.