

1 I have since then left the co-op. It's still in existence. They  
2 primarily deal in green onions and variety lettuce and hot-house cucumbers.  
3 And I, as an individual, would ask the commission to consider very, very  
4 strongly if not eliminating the hoe completely, then at least giving the  
5 worker a choice of whether he wants to use the long-handled hoe or he wants  
6 to use the short-handled hoe. That choice is not available in the Salinas  
7 Valley at this particular time. Are there any questions?

8 MR. WHITE: I'm sorry, I didn't get his name.

9 MR. OLIVAS: My name is Manuel Olivas, O-L-I-V-A-S.

10 MR. WHITE: You mentioned you had an economist to give you his thinking  
11 on the effects of the long-handled hoe as opposed to the short-handled hoe.

12 MR. OLIVAS: Right.

13 MR. WHITE: Did he do this in a formal report that might be available  
14 to us?

15 MR. OLIVAS: It might be available. He dealt primarily in yield  
16 production per acre per row, etc. He broke it on down to per row. How many  
17 boxes you would get out of each row. One of the things that we did find out  
18 was that the individuals that used the short-handled hoe, in the rows that  
19 they used them, came out with fewer boxes of produce than the ones that  
20 used the long-handled hoe. As a matter of fact, we had a big argument about  
21 it because they wanted to get equal shares. You know the idea of cooperative  
22 farming is relatively new, and since it was all in one parcel of land, they  
23 felt that they were entitled to share in the profits of the other workers.  
24 But the individual was doing work for his own family period. The economist  
25 was an economist that used to work with the federal government before doing  
26 these types of statistical analyses, and he primarily-- that's all he  
27 primarily did. He came in and gave us a statistical analysis of the projected  
28 yield production per crop per row. That's how we were able to figure out

1 that the production of the individuals that used the short-handled hoe was  
2 just a little bit lower than the ones that used the long-handled hoe. The  
3 experiment, unfortunately, was not conducted on a larger scale like maybe  
4 thirty or forty acres of lettuce where you could monitor a little bit closer.  
5 I didn't know this was going to come up. We just did it because it came up  
6 as an argument. It was not done for any purpose at all. It was just done  
7 for-- within our own cooperative framework there.

8 MR. WHITE: Thank you.

9 MR. MARR: I would like to ask you, you're suggesting here, I guess, that  
10 if worse came to worse that the worker be given a choice of the long or the  
11 short-handled hoe. Is that what you suggested?

12 MR. OLIVAS: That's exactly right. Right now this choice is not available.

13 MR. MARR: You say you've worked as a manager of a ranch. If I worked  
14 for you and you felt rather strongly about the short-handled hoe, and I asked  
15 for a long-handled one, how long would I work for you?

16 MR. OLIVAS: Approximately ten minutes.

17 MR. MARR: That's what I thought.

18 THE BOARD: When was this eight family cooperative situation?

19 MR. OLIVAS: This was last year. I worked from February of last year  
20 until February of this year.

21 THE BOARD: I see. So it's current.

22 MR. OLIVAS: It's current.

23 THE BOARD: Mr. Olivas, if that cooperative is still in existence, is  
24 it possible for us to contact them and ask about this report?

25 MR. OLIVAS: I don't think there's a report made. As I stated, it was  
26 just amongst ourselves. We didn't know that there was going to be any--

27 THE BOARD: I see.

28 MR. OLIVAS: It's been of primary interest to me since coming from a

1 migrant background.

2 MR. WHITE: Thank you for coming. Those of you who are leaving, we  
3 appreciate your attendance very much. All right, was it a formal written  
4 report?

5 MR. OLIVAS: No. Just done for the workers themselves.

6 THE BOARD: In your opinion, would it make a difference as to the  
7 length of the hoe? If it weren't short and it weren't long, is there something  
8 in between, 3 feet, 2 feet, 4 feet?

9 MR. OLIVAS: Yes, it makes considerable difference. It's very difficult  
10 for short persons to use the long-handled hoe. The individual is about as  
11 high as the hoe is, so you've got about 2 feet of hoe sticking out and it's  
12 going to hurt somebody. But I would prefer the long-handled hoe to the  
13 short-handled hoe any day.

14 THE BOARD: And something in between wouldn't particularly make any  
15 difference?

16 MR. OLIVAS: That I'm not qualified to comment on. I haven't had any  
17 experience with anything but those kind of hoes, the long-handled hoe and  
18 the short-handled hoe.

19 MR. WHITE: Any other questions? Thank you, Mr. Olivas.

20 MR. PAUL W. ENGLUND: Mr. Chairman and members of the commission, my  
21 name is Paul Englund. I'm with the R. T. Englund Company in Salinas. I've  
22 worked in produce for over seventeen years. I've been raised in it. I have  
23 thinned lettuce. I have worked with thinning crews. I know what it is, it's  
24 hard and difficult work. There's no question about that. But unfortunately  
25 it's a necessary evil to the requirements of our business. The hoes that you  
26 just saw that were shown by Mr. Olivas I think exemplify the fact in the  
27 requirement for it because, as you noticed, there were two sizes of hoes.  
28 One is for thinning when you have very small plants that need to be thinned

to a spacing of eight to ten to twelve inches. The smaller hoe is used when the plant is larger. You still need to get between those plants to take out the weeds, to take out a double if they exist, and that narrowable slide between the larger plants without damaging them. There's no way that a long-handled hoe can have the control to get in there. You simply can't hold a four-foot stick in front of you and control its direction as closely as you can when you have an eighteen or a twenty-inch hoe handle.

I think that we've got to consider that stoop labor is predominate in the production of fresh market vegetables. It's inherent to the crops because of the requirements, because of the necessity for agriculture to maintain a high production at the lowest possible cost. We've all seen this consumer groups that are out because of prices being raised. We heard the comment that somebody would rather pay more money. I'm afraid the American housewife doesn't look at it that way. She wants the most for the least. Agriculture running at about two percent return on investment doesn't have a lot of leeway. We don't have a lot of room to have a much lower production for the same market because our market is at the whim of the total marketing situation.

The short-handled hoe is only a small part of what we will call stoop labor in agriculture. There's a picture on the wall over here of lettuce harvesting, and if you'll look at it, you'll see the packer bending over packing lettuce. You'll see the cutter bending over cutting lettuce. As a guess I would think that the short-handled hoe portion of the agriculture industry might be twenty to twenty-five percent of the total stoop labor force, because we have people working in celery, strawberries, onions, you name the crops, that are required to have stoop labor in them because people have to bend over to pick something up off the ground, and all agricultural crops are grown on the ground. Now, I've had experience in the Salinas Valley in California. I was raised here. I've worked in Arizona. I've worked in

1 Colorado. I've been in New Mexico and I've been to Texas. Lettuce is a  
2 major commodity in these states. The states of California, Arizona, New  
3 Mexico produce about eighty-five percent of the nation's lettuce. The State  
4 of California produces about fifty to sixty percent. All of that lettuce is  
5 thinned with a short-handled hoe because we have to have yield for production  
6 to survive.

7 There's a question in my mind if we're looking at eliminating the short-  
8 handled hoe because people have to bend over. Are we looking at eliminating  
9 stoop labor, and if we eliminate stoop labor, what are we going to do to  
10 agriculture. It's one of the major industries in the State of California.  
11 It's one of the major industries in the Southwest. Is the short-handled hoe  
12 worse than cutting lettuce, or packing lettuce, or picking strawberries, or  
13 picking onions, or all the crops that are grown on the ground. That's a  
14 question I don't know, but I can see what the result would be.

15 The loss of jobs that has been mentioned is not a threat. It's a fact.  
16 You're going to put an awful lot of people out of work because if you take  
17 away the control that we have with the short-handled hoe, we in the industry  
18 will have to mechanize. Because if we're going to have a reduced production,  
19 we're going to have to reduce the cost. It costs us anywhere from \$60.00 to  
20 \$80.00 an acre to thin and hoe an acre of lettuce. It can cost us as high  
21 as \$100.00 an acre. Our production costs now of lettuce is \$450.00 to  
22 \$500.00 an acre. Our return can be from zero up or down. A farmer can  
23 plant an acre of lettuce and he has no assurance that he will gain one cent  
24 of that back.

25 The other thing that I think we have to consider is the job that may  
26 be eliminated by either reducing or eliminating the short-handled hoe and/or  
27 stoop labor. What's going to happen to the economy in the areas in which  
28 that labor is working now. You've got roughly a four times economic factor

1 in the economies of the areas. The wages and earnings of the people working  
2 in labor is spread about four times the economy of the over all area. So  
3 the short-handled hoe itself is only a small segment of the over all impact  
4 that could occur. Thank you.

5 MR. WHITE: Thank you, Mr. Englund. It occurs to me, is anyone going to  
6 say anything about the person who manufactures the short hoe, that makes the  
7 short hoe itself in the first place? We're getting information from one of  
8 the people who buy the short hoe, where they are bought, and I know one of  
9 them is in Sacramento so I'm going to be covering that myself. But we aren't  
10 hearing from the people who produce the instrument itself.

11 MR. ENGLUND: Mr. Chairman, I believe there are many people who make  
12 and sell short-handled hoes.

13 MR. WHITE: How big a part of their business is it?

14 MR. ENGLUND: That I wouldn't know. I would presume that's a portion  
15 of their over all line which probably includes long-handled hoes, pitchforks,  
16 rakes.

17 MR. WHITE: I see.

18 MR. ENGLUND: This type thing. I don't believe there's a specific  
19 industry that makes short-handled hoes.

20 MR. WHITE: Questions from the commission at all? Thank you, Mr. Englund,  
21 very much.

22 MR. TONY CERVANTES: (SPOKEN IN SPANISH. TRANSLATION FOLLOWS)

23 TRANSLATOR: Gentlemen of the commission, we have heard various  
24 declarations here on the part of the people that are employers and on the  
25 part of the workers. Those people of the employers of agriculture defend  
26 their rights which is very proper. Those workers have the right to ask for  
27 justice. Standing here just mentioned that it could be a problem for the  
28 short hoe to be eliminated. Over a period of time, and I'm speaking of over

1 thirty years I've been working in agriculture, years when topping beets was  
2 a job that was very arduous in that it was said that it had to be done, they  
3 found a way to replace that. It was in the cutting and picking where there  
4 was thousands of workers, Mexican workers, working in the San Joaquin Valley  
5 and up and down the State of California. It was never important to them  
6 that thousands of people would be without work. They invented the machine  
7 and brought them in anyway. This was the 1940's and I don't think that this  
8 nation, which had over 150,000,000 people to be able to bring in, would have  
9 to import workers from another nation to come and do the work. The workers  
10 suffered because we couldn't do the work and compete with the braceros  
11 because they worked overly fast. But we suffered through it and we worked  
12 here.

13 MR. WHITE: Could I make a suggestion please. We're interested in his  
14 opinion on the short hoe. Are you coming to that?

15 TRANSLATOR: He's going in that direction, sir.

16 -- lift and harvest their crops in the fields. But even so, at the  
17 present the crops are being harvested even as they were when the braceros  
18 were here. They were opposed to giving just a little bit more comfort to  
19 the farm worker who works in the field. And so when he comes out of work in  
20 the evening, he embraces his children, or be happy and rest, or if he even  
21 wants to go out and dance that evening instead of suffering the pain of work.

22 MR. WHITE: We simply have to get--

23 TRANSLATOR: Worked in Bakersfield and Stockton, and I've worked here  
24 sometimes, not always, but mostly in weeding and thinning, and it's not the  
25 problem that the work cannot be done, it's the problem that they don't want  
26 to try this with the long-handled hoe.

27 MR. \_\_\_\_\_: What about the difference in crops?

28 TRANSLATOR: --which when it grew out of the ground came up in various

1 sprouts all in a bunch and it was very hard to thin this out to take the  
2 doubles out. Subsequently the University of California came up with a  
3 different size seed, a number fifteen, which made a lot of difference.  
4 --plants farther apart perhaps two or three inches apart rather than the  
5 clumps and it's very feasible to use a long hoe.

6 MR. WHITE: Thank you very much. And thank you for your help as an  
7 interpreter.

8 MR. HARRY C. MELLON: My name is Harry Mellon. I live at 961-3 Acosta  
9 Plaza, Salinas, California. Just a brief note about my experiences. I was  
10 nine years farming in Imperial Valley, and I started in the field driving  
11 tractor, and thinning, and luck was with me and I was able to progress  
12 through the chairs, you might say. At the end of nine years in the Imperial  
13 Valley I went to work for Union Carbide Creative Agricultural Systems, and  
14 I was responsible for the development of precision planting systems and  
15 along with that, other systems that we hope-- that were day after tomorrows  
16 agricultural lies. During the course of that time, as manager of field  
17 services for Creative Agricultural Systems, I traveled throughout the United  
18 States and Canada through all of the agricultural intensive vegetable areas  
19 in the United States.

20 Now, I want to speak to the question of why use a hoe whether it's short  
21 or long. To understand really the function of a hoe and its necessity, I  
22 think we have to understand and define certain terms. So far the testimony  
23 that I've heard here today seems to be mixing up apples and oranges and other  
24 produce and fruit. Let's stop and delineate between these various functions.  
25 First of all, there's a saying amongst the farmers if you haven't got a  
26 stand, you haven't got anything. In order to insure a stand, the farmer must  
27 plant more seed than he needs plants. This entails population reduction.  
28 Now there are two forms of plant population reduction. One is called blocking



1 Blocking is used in all of those crops where the farmer needs an approximate  
2 number of plants per acre without any consideration as to their proximity  
3 and spacing and so on. Crops that are blocked are cotton, melons, and so on.  
4 These crops lend themselves particularly and they're very amiable to the  
5 long-handled hoe. And throughout the country, based upon my travels and  
6 observations and experiences, without exception all of those crops that are  
7 amenable to the use of the long-handled hoe in terms of blocking, in terms  
8 of getting the requisite plant population per acre, the long-handled hoe is  
9 used without exception.

10 Now, the second kind of population reduction is loosely called thinning.  
11 Thinning means that the plants are reduced to specific spacing and one at  
12 a time. In other words, they are singulated and spaced. And no crop in my  
13 experience have I seen has a long-handled hoe been successfully used to  
14 adequately and efficiently and economically thin those crops. The major crops  
15 that we're talking about, particularly in California and that's what we are  
16 concerned with at the moment in California, are lettuce, celery, and  
17 asparagus. Now, the problem that we get into is that these plants must be  
18 exactly spaced more or less within tolerances, two or three-inch tolerances  
19 versus eight, or nine, or ten inches when you're blocking say in melons, and  
20 they must be singulated. A lot has been said about doubles, but I haven't  
21 heard it defined. A double is two seedlings, or plants, in such close  
22 proximity that neither of the plants will mature or develop into a marketable  
23 product. So you can see obviously then that the higher percent doubles that  
24 you have in the field, the worse off you are. If you take a lettuce field  
25 that's been thinned and you have an eight-five percent population, in other  
26 words one plant or one seed every twelve inches on a forty-inch bed, you  
27 should have slightly in excess of 26,000 plants. This is optimum. After  
28 thinning if you have eight-five percent stand, and this is average, and this

1 is based upon my own observations and my own field studies and so on when I  
2 was independent and gathering information for Creative Agricultural Systems.  
3 In other words, I was not associated with the farming company as such. I was  
4 gathering field experience data. If you have a stand of eighty-five percent  
5 and you have a doubles population of twenty percent, in effect you have a  
6 sixty-five percent stand which is totally uneconomical and is not acceptable  
7 in terms of growing cost and potential return to the farmer.

8 Now, what does the future hold. The future holds singulation of seed,  
9 precision planting, mechanical thinning, and things of that sort. We do not  
10 have those things as such. Keep in mind that everything that we're talking  
11 about today, we're talking about a short-handled hoe used to thin, everything  
12 is hinged around the seed. The seed is a living thing. Sometimes it has a  
13 mind of its own. Some seeds, we're talking about lettuce and celery  
14 particularly, are extremely difficult to singulate. They are extremely  
15 difficult to plant exactly. There are such things as coatings. There are  
16 such things as putting seeds in wafers. There are such things as putting  
17 seeds in wafers. There are such things as putting seed in water soluble  
18 tape where you can concisely and precisely plant seed. These things are  
19 coming. They are becoming more accepted all of the time. The technology is  
20 not quite with us. I submit that at this time, and at this place, in this  
21 stage of our technology, there is no adequate alternative to the short-handled  
22 hoe.

23 Much has been said about repetitive bending, and other people have talked  
24 about it, learned counsel here have outlined the economic factors involved  
25 and the long term aspects of repetitive bending. It's rather obvious that  
26 farm laborers do not spend all of their time just thinning with a short-handle  
27 hoe. They undertake other types of work in agricultural fields. These types  
28 of activities also require repetitive bending and I would like to emphasize

1 that point.

2 Tomorrow, day after tomorrow, technology, agricultural technology, the  
3 Government of the United States, the University of California, independent  
4 corporations, individual growers are working diligently, and in some cases  
5 desperately, to develop the technology, to develop the technique of precision  
6 planting and of mechanized thinning, of mechanized harvesting. The reason  
7 is that it's more economical, it's more efficient, and much has been said  
8 about the demeaning nature of the short-handled hoe, the brutality of it,  
9 and so on. The farmers, contrary to popular belief, are not necessarily  
10 cold-hearted, and they are not necessarily ogres under the bridge waiting for  
11 billygoat gruff. I submit, based upon my own experience, based upon my own  
12 observations, and incidentally in passing, something was said about in no  
13 other state but California do they use short-handled hoes. In Texas and the  
14 cotton areas they do not. I submit that people should get down around  
15 McAllen, Texas where they have intensive vegetable farming similar to what  
16 we have in California and you will see quite a number of crews out with  
17 short-handled hoes. The same in Florida. The same in New Jersey. The same  
18 in Minnesota. Those areas that do not transplant seedlings into the field  
19 in the intensive areas are finding that they cannot get the work done, they  
20 cannot get the plant populations, they cannot get the quality of product that  
21 they need without the short-handled hoe. This has been my experience.

22 Any questions?

23 THE BOARD: Who are you with now, Mr. Mellon?

24 MR. MELLON: Right now I'm self-employed.

25 MR. WHITE: Any other questions? Thank you, Mr. Mellon, very much.

26 MR. DENNIS POWELL: My name is Powell. I'm associated with Mr. Glick in  
27 CRLA. Although I was not at the hearing in El Centro, I understand you  
28 utilized a procedure down there for farm workers and witnesses who had no

1 experience in testifying and who may be a little inexperienced in getting up  
2 here. I have such a witness and I would like to ask him a few questions,  
3 if I might.

4 MR. WHITE: Certainly, that's fine. If you need an interpreter, we've  
5 been getting good cooperation.

6 MR. MANUEL MENDOZA: (SPOKEN IN SPANISH. TRANSLATION FOLLOWS)

7 TRANSLATOR: His name is Mendoza. He lives at 500 Monterey Street in  
8 Soledad, California and he is here to testify.

9 MR. POWELL: Senior Mendoza, I wonder if you would give us a very brief  
10 history of your experience and your occupation.

11 TRANSLATOR: I'd like to tell you that the short-handled hoe, which I  
12 have used all the time that I have lived, I have had a very difficult problem  
13 because of the short-handled hoe. And this particular problem I would like  
14 to tell you that the long-handled hoe is beneficial to anybody my age. I  
15 am going to show you the position that you take when you're using the short-  
16 handled hoe so you can see how you straighten up when you are already so tired.  
17 This is the position you use working and you arise in this fashion. In this  
18 fashion if you consider the way in which you are positioned in the way you  
19 are working, then you can react to this. I would like to show you the position  
20 that you assume when you are working with the long-handled hoe. You stand  
21 in this fashion then you straighten up. You stand up straighter much less  
22 tired than if you were working doubled up. I would like to show you the way  
23 we finish the days work. When you get out of work, this is the position we  
24 assume all of those who work with the short-handled hoe of my age. This is  
25 why we should give to all the people the facility to rest a little bit more  
26 and come out of work less tired. I've heard a lot of people speak here of  
27 not having had problems with the back or pain in their back, but I can  
28 justify it to any worker, to any thinner, that once you pass the age of forty

1 years, you will not be able to do the work that you could when you were  
2 twenty-five or thirty.

3 MR. WHITE: Mr. Powell, is Mr. Mendoza going to--

4 MR. POWELL: Let me ask a specific question. Senior Mendoza did you  
5 injure your back working on the el cortito and, if so, I wonder if you would  
6 explain how it happened.

7 TRANSLATOR: I had a problem doing my job when I was working. After about  
8 three hours of work when I tried to straighten up to rest, I fell all the  
9 way over backwards. Since my body was warm from working, I tried to straighten  
10 up as I always did, and my waist cracked, and I fell over backwards and I was  
11 ill for about fifteen days. That type of difficulty has happened not only to  
12 me, but to many people.

13 THE BOARD: How old was he when he was injured?

14 TRANSLATOR: Thirty-six years old.

15 THE BOARD: Senior Mendoza, have you had trouble with your back since  
16 then?

17 TRANSLATOR: Yes, I have to date.

18 MR. WHITE: Is he still working as a farm worker?

19 TRANSLATOR: No, sir.

20 MR. WHITE: What's he doing now?

21 TRANSLATOR: He's disabled.

22 MR. WHITE: And how is he living? Is he receiving compensation?

23 TRANSLATOR: He received social security benefits.

24 THE BOARD: Senior Mendoza, are you receiving workmens compensation?

25 TRANSLATOR: No, sir.

26 MR. WHITE: What kind of social security? Disability?

27 TRANSLATOR: Disability benefits, sir.

28 MR. WHITE: How old is he?

1 TRANSLATOR: Sixty-five.

2 MR. WHITE: Thank you, Mr. Mendoza. Thank you, Mr. Powell. Is there  
3 anyone else who wishes to be heard on this? Yes, sir.

4 MR. RICHARD CHAVEZ: Mr. Chairman, my name is Richard Chavez. I live  
5 here in Salinas. I'm an official of the United Farm Workers Union. I've  
6 been sitting here and listening to different opinions. One of them, I forget  
7 what the gentleman's name was, regarding that a seed is alive. I would have  
8 the tendency to have also another thought in that a human being is also alive.  
9 Let's think about him too. I also heard a comment in regards to the stature  
10 of a person that works. If he's a shorter person, it's obvious he can stoop  
11 and it won't bother him. In other words, strong back, weak mind.

12 What I essentially came here for was to listen to this and have an  
13 opportunity to say in regards to this, our union is opposed to the short-handled  
14 hoe. We do get a lot of complaints from the workers stating how hard it is  
15 on their backs. It's not the weapon. Everybody's been talking about a  
16 weapon here. It's not so much the weapon, it's the human factor involved here.  
17 I know what I'm talking about because I've experienced this. I've done this  
18 type of work and I know what it's like. I know what it feels like after  
19 about five hours. Maybe it's not breaking your back right there, but is sure  
20 is bothering you. I dare anyone, and just like the gentleman here said  
21 awhile ago, to go out there and try to do it. For anyone to say it doesn't  
22 bother you, it does, believe me. And I speak on this by experience. I now  
23 have a bad back. I went as far as to have it operated on. I heard also that  
24 there's no claims ever made in regards to compensation from bad backs.  
25 Well, it would take me five, maybe ten, hours to explain a few things in  
26 regards to this. One of those was touched upon, and that's lots of these  
27 people are completely ignorant of their rights in regards to claiming  
28 compensation. I'm sure of one thing, I don't think there's going to be

1 anybody, especially an insurance adjustor, volunteering information to this  
2 worker that he can claim compensation insurance or whatever. I'm sure of  
3 this. When I say I'm sure of it, I'm experiencing this. I'm talking to  
4 people. That's why you don't have claims. They are given the runaround.  
5 Sometimes you go to a certain doctor and he says, well you're all right, the  
6 next day you can go to work. And this is why the end result is that after  
7 about a certain amount of years what's wrong with this person. His back is  
8 bad. Why? And maybe this is why. Another thing I heard, why can't they be  
9 given the opportunity for them to decide and why also can't we try it.  
10 We'll never know until we try it. All I've heard is you can't do it. I  
11 haven't heard anybody say maybe we should try it. I know a question might  
12 run here, why doesn't the union negotiate for a short-handled hoe. But why  
13 should we negotiate this particular problem. In regards to wages for the  
14 poorest workers in this country, the poorest paid in the country, why should  
15 we take that when the government can do something about this. Why should a  
16 union negotiate a problem of this nature just like other problems. This is  
17 one of many.

18 THE BOARD: Let me ask you a question, Mr. Chavez. Have you tried to  
19 bring this up during negotiations?

20 MR. CHAVEZ: For the reason I just stated.

21 THE BOARD: I mean did you bring it up and that was the answer you  
22 received?

23 MR. CHAVEZ: No, I just stated should we negotiate these peoples' wages,  
24 which are low to start with, on a problem that the government can do something  
25 about to alleviate if possible.

26 THE BOARD: All right, so you have not brought it up.

27 MR. CHAVEZ: Not in that sense to negotiate it, no.

28 THE BOARD: It is my understanding, Mr. Chavez, what you're saying is

1 that you don't want to use up anything you might get in the way of benefits  
2 for your people. You don't want to give up anything that you might get for  
3 this short-handled hoe because you feel it should be outlawed by the  
4 governmental agencies.

5 MR. CHAVEZ: I stated that the government can do something about this.  
6 Why should a union negotiate a situation. Like I stated also, this is one  
7 of many, many problems a farm worker has. Is a union going to negotiate  
8 every problem.

9 THE BOARD: What percent of your people complain would you say. Maybe  
10 that is not a fair question, but a fourth of them, a half, or do you get it  
11 from the majority of workers that their backs are bothering them?

12 MR. CHAVEZ: Quite a few. I can't really state a certain percentage, but  
13 complaints come into the office like, oh my back's bothering me, this work  
14 is bothering me. We also have referred a few to compensation on bad backs.

15 THE BOARD: What is your organization doing in the way of educating your  
16 people as to their rights?

17 MR. CHAVEZ: Like I stated just now, we have referred, we have explained  
18 to them what-- if they have a problem, if it's a disability, we refer them  
19 to certain agencies that should take care of this problem.

20 MR. WHITE: Any other questions? Thank you, Mr. Chavez.

21 DR. JOHN RADEBAUGH: My name is Dr. John Radebaugh. I'm a member of the  
22 National Farm Workers Health Group and I'm located in Sanger, California.  
23 By way of introduction, I've worked for eight years with farm workers, first  
24 in New York State in rural areas around Rochester, New York; secondly, in the  
25 Imperial Valley, and finally in Fresno County in the Sanger area. While in  
26 the Rochester area, I encountered a number of problems among farm workers,  
27 but few back problems among this particular group. Yet upon arrival in the  
28 Imperial Valley, I was impressed with the number of patients who at a young



1 age exhibited significant spinal pathology. Many of these workers were in  
2 their thirty's and forty's, and most had given a history of working with the  
3 short hoe. I mention again in review, this was not a problem in the Northern  
4 New York State area where I previously worked.

5 I'll just mention some aspects about the human vertebral column for  
6 review and I'd like to show you this.

7 MR. WHITE: Due to the fact that you're the tenth physician--

8 DR. RADEBAUGH: Yes. I have something different, I think. As you can  
9 see, it's a complicated structure. It has a number of vertebrae associated  
10 with it and it has a normal S pattern when the person is standing in the  
11 upright position, as you can see from the side view. This pattern is  
12 erased when the person is working in a stooped position.

13 Next I'd like to show you another illustration. In the normal spine  
14 column there are a large number of ligaments which provide strength and  
15 rigidity, and prevent it from losing its normal position. These are very  
16 important and they are frequently stretched when persons change their  
17 position from the normal S position in the upright position.

18 With this introduction, one can see the complicated ligaments and  
19 structures which support the vertebral column. These structures can withstand  
20 considerable strain and do so in the normal human body. Yet in certain  
21 positions, such as extreme flexion in which the vertebral column is in a long  
22 arch, and over a long period of time, permanent deformities and permanent  
23 changes can be produced. I have seen patients who, after working in such  
24 positions over many years, showing degeneration as young as thirty or thirty-  
25 five years, a condition which I've not previously seen until patients reach  
26 fifty or sixty years.

27 Let me give you one example only of a patient whom I've seen recently.  
28 Sam Avidras of 941 East Clinton Street in Fresno is now aged thirty-five.

1 At the age of ten, eleven, twelve, thirteen and fourteen years he traveled  
2 with his family in the Tulare, San Jose, Salinas and Walnut Creek areas.  
3 He recalls that while working for six and one-half days per week at  
4 approximately thirty-five to forty dollars a week, eight hours a day, with  
5 fifteen minutes for lunch, that at the end of such a day when working with  
6 the short hoe he could not straighten up at the end of the day. At the end  
7 of a three-quarters of an hour bus ride to his home he still wasn't able to  
8 straighten up completely. He recalls that the rest of the family also had  
9 the same complaints. He did this work only for five years during which time  
10 he was developing as a boy and had not obtained full vertebral growth at  
11 that time. He had a brother of a similar age who had similar complaints.  
12 His brother still has difficulty in maintaining the erect position and acts  
13 like a person who has low back arthritis. Mr. Avidras himself still has back  
14 trouble and rheumatic pains in his lower back in spite of the fact that he  
15 has not done such work since the age of fifteen. In addition, he has  
16 performed no other work of either a heavy nature, or farm work, since that  
17 period of time, and continues to have this type of arthritic complaint.

18 The prolonged strain in this unnatural attitude for the spine provides,  
19 especially for young people, a separation of the cartilages at a time when  
20 these cartilages are still in the developing stage. For older workers the  
21 strain over a long period of time produces stretching of the normal ligaments,  
22 instability of the back and finally erosion of the cartilages of the bone,  
23 factors which are permanent and which may occur at a young age. How can this  
24 be prevented? By allowing work to be done in a more erect position as much  
25 as possible. Obviously some types of work have to be done in a stooped  
26 position, certain picking operations for example. Yet the hoe or thinning  
27 instrument can be made lighter, can have longer handles, and still be  
28 effectively used. Medically this is a simple request and a simple preventive

1 measure. It is one that is accomplished in the East and certainly could be  
2 possible in California and Arizona. As a physician with considerable  
3 experience with farm workers, I summarize again the observation that workers  
4 in California with whom I've had experience show considerably more back  
5 problems than those I noted in the East. I believe that this is directly  
6 related to the prevalent usage of the short hoe in California. Thank you.

7 MR. WHITE: Thank you, Doctor. Are there questions?

8 THE BOARD: Doctor, was the ethnic makeup of the work force in the East  
9 essentially the same as it is out here? Does that have any effect on it?

10 DR. RADEBAUGH: I don't believe so.

11 THE BOARD: I was wondering if there was any significant difference in  
12 size, the average size, of the people is what I was primarily thinking about.

13 DR. RADEBAUGH: No.

14 MR. WHITE: How about the nature of the crops. Was there thinning going  
15 on there and this type of thing?

16 DR. RADEBAUGH: Yes. Cabbages, for example, were grown in the area where  
17 we were and those had to be thinned much in the same manner as lettuce.

18 MR. WHITE: Did they use the long hoe to do the thinning?

19 DR. RADEBAUGH: Yes.

20 MR. WHITE: Any other questions? Thank you, Doctor. Is there anyone else  
21 who would care to be heard?

22 MR. JOSE CAVAZOS: My name is Jose Cavazos. I live at 352 Main Street,  
23 Soledad, California. (SPOKEN IN SPANISH. TRANSLATION FOLLOWS)

24 TRANSLATOR: I have been working twenty-three years up to present. All  
25 my life I have worked with the cortito. I believe, no I'm sure, that we can  
26 use the long hoe provided we have a chance because I'm going to prove to you  
27 one thing. I have worked in all those states that he mentioned. With the  
28 long hoe the crops are cotton and beets. I have worked in California eighteen

1 or twenty years. With the majority use the short hoe. I have shown that  
2 the long hoe can be used. In 1960 and '61 I've used the long hoe weeding  
3 tomatoes, broccoli, lettuce, peas and beans. I think, and I know, and I  
4 want to show you something today in that blackboard. I'll show you that the  
5 long hoe can be used. All these witnesses before you have said that it cannot  
6 be done because it was five years, I talk about five years, back. I'm going  
7 to talk to you of the present. Before they used to plant one way, now they  
8 plant differently. This is the way it used to be planted before. This is  
9 the same space. Before, the way it was planted I would hit the ground ten  
10 times with the hoe or less. Now I can only hit the ground five times in the  
11 same space. They believe that before they used to leave a lot of doubles,  
12 fifteen or twenty percent doubles, which is true. Now here in the same space  
13 it's five percent. I can just show you why I'm willing to give five hoeing  
14 instead of ten.

15 MR. WHITE: The seeds aren't as close now, but there's still not  
16 precision planting, I gather. It's approaching having the seeds further  
17 apart so not as much thinning required.

18 TRANSLATOR: (Inaudible) --planted thinner than it used to be.

19 MR. WHITE: They're planted a little further apart.

20 TRANSLATOR: A lot of farmers do not thin beets now. Broccoli. Beans  
21 they don't weed them no more. So, gentlemen, that's just about all I'm  
22 going to say, and I think if given the opportunity to use a long hoe, it would  
23 be ninety-seven percent beneficial to Mexicans because there are not very  
24 many of the other kind in the other fields.

25 MR. WHITE: Questions? Mr. Cavazos, thank you very much.

26 CRLA: With your indulgence, I have one more witness that I'd like to  
27 ask a couple of questions to.

28 MR. WHITE: All right. We're striving for new information.

1 MR. S. MORIN: (SPOKEN IN SPANISH. TRANSLATION FOLLOWS)  
2 TRANSLATOR: My name is Morin and I live at 419 Benito In Soledad.  
3 CRLA: Mr. Morin, are you presently employed?  
4 TRANSLATOR: No.  
5 CRLA: Is it a fact, sir, that you are presently disabled?  
6 TRANSLATOR: Yes, I am. I had an operation.  
7 CRLA: In your last employment what was your occupation?  
8 TRANSLATOR: Foreman.  
9 CRLA: And in what business?  
10 TRANSLATOR: Lettuce, beets, tomatoes.  
11 CRLA: What area was that in, sir?  
12 TRANSLATOR: Lettuce and beets here in Soledad..  
13 CRLA: Did you have crews working under your control which thinned and  
14 weeded this lettuce and the other vegetables you worked on? Did they use  
15 the short-handled hoe?  
16 TRANSLATOR: Yes, they used the short hoe.  
17 CRLA: Have you had experience elsewhere in the United States working on  
18 lettuce and beets?  
19 TRANSLATOR: In the state of Idaho.  
20 CRLA: What was your position there? Were you also a foreman there?  
21 TRANSLATOR: No, labor contractor and foreman at the same time.  
22 CRLA: And did the crews working under you control, thin and weed  
23 lettuce and beets in Idaho?  
24 TRANSLATOR: With a long-handled hoe all the work.  
25 CRLA: And were they able to do just as good a job with the long-handled  
26 hoe in Idaho as they were able to do with the cortito here?  
27 TRANSLATOR: The work is the same with the short-handled hoe as the  
28 long-handled hoe. I can prove it to anybody with whatever field they would

1 like me to prove it in.

2 MR. WHITE: Questions? Thank you, Mr. Morin.

3 MR. GARZA: I testified before you earlier this morning. I just wanted  
4 to clarify, or rather react, to that it was mentioned that if you do away  
5 with the cortito what about the other crops. And I wanted to say that those  
6 of us who have done the cortito know that it occupies a very, very special  
7 position in our lives. I have picked cabbage and practically everything.  
8 But I think if we were to examine what are the characteristics that make the  
9 cortito very, very peculiar, a very, very special case, and perhaps not the  
10 cortito itself, but the mechanics that are inherent in thinning with the  
11 cortito. You'll find when you compare it with picking lettuce and other  
12 things, other crops, that in the cortito, as one of the attorneys mentioned  
13 earlier, you have this sort of repetitive trauma inherent in the position  
14 itself. In cutting lettuce you have the packer, you have the cutter, you  
15 have the option of going to the other side of the row to cut the lettuce.  
16 Whereas with the cortito you just have one position that has about two or  
17 three basic steps to it and it is all day long.

18 Also, another thing is that the foreman, when using the cortito, will  
19 usually keep track in their own sort of tentative way of the number of times  
20 the person stands up to give his back a so-called rest. A lot of times what  
21 they'll do, for example, in half an hour if a person stands up ten times or  
22 more, they'll keep an eye on this guy and he won't be there the next day.  
23 I saw this thing occur day in and day out when I was working with the cortito.  
24 The sort of inherent relaxing mechanisms in harvesting other crops is built  
25 into it, but not in the cortito. The cortito is the same sort of monotonous  
26 steps that you have to follow. It's very, very simple, very monotonous and  
27 it's very excruciating on the back. By way of further clarification to some  
28 of those people were saying that if you do away with the cortito what are

1 the effects for lettuce and celery and other crops, and I say that the cortito,  
2 those of us who have done it, despite the fact that we've harvested twenty  
3 other crops in twenty other different ways, will always be amazed and awed at  
4 the cortito because of this very basic sort of monotonous way of doing it.  
5 Thank you. Are there any questions?

6 DR. DAVID FLANAGAN: I have one brief point that won't take a minute  
7 that's not been covered before. Something came up in the testimony.

8 MR. WHITE: All right, Doctor. Good to see you again. We enjoyed your  
9 presentation in San Francisco. Very helpful.

10 DR. FLANAGAN: Something has come up in the last couple of days that  
11 distressed me, and I think just a couple of minutes could clarify what I  
12 think is a very important point. I've gotten very distressed about the fact  
13 that in the last couple of days this issue of compensation has come up.  
14 I think in El Centro it was clarified that the injury itself, using the short  
15 hoe, is not a reportable injury because there's no incident. There's no  
16 acute on-the-job accident. It's just an accumulation so there's nothing to  
17 report. The thing that I think is more important is that the insurance  
18 companies that we've heard testify said that there are no short hoe injuries.  
19 They've seen pathology from other conditions, such as jumping in an irrigation  
20 ditch, or jumping off of a truck, or falling down in a ditch, and they say  
21 this is where we see the disc pathology, this is where we do the operation  
22 for laminectomies and so forth. Well, I think that we see much more severe  
23 forces applied to the spine in different conditions in orthopedics. For  
24 instance, a diabetic who doesn't adjust his insulin properly goes into  
25 convulsions. All his muscles go into convulsions and he applies a tremendous  
26 force much greater than jumping off of a truck, or jumping in an irrigation  
27 ditch. We also see it in automobile accidents where people are wearing seat  
28 belts but not shoulder harnesses. Tremendous forces when they hit something.

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3'  
1 disc is already gone. We don't see it in these other conditions. I think  
2 that's very important to consider if you're going to review compensation  
3 records. You're not going to see the full story. All you're going to see  
4 is an incident, an acute on-the-job incident.

5 MR. WHITE: Good point. Any question at all? Thank you, doctor, for  
6 clarifying it.

7 MR. GLICK: Gentlemen, we have completed our testimony. If I might be  
8 permitted a brief two-minute summation, I'd appreciate that.

9 MR. WHITE: All right.

10 MR. GLICK: I am not going to try to enumerate all the points. It would  
11 take a long time, or go back over any of the testimony. We've heard that  
12 and we've heard it repetitively. I'll just say that in terms of the ability  
13 to do the job with the long-handled hoe we've had conflicting testimony here  
14 today, and that testimony goes to lettuce, it goes to sugar beets. We've  
15 had testimony from growers that of course you can do it with sugar beets.  
16 So, I think we've laid that one to rest completely. I think lettuce is the  
17 controversy that's left, lettuce and celery. We've heard conflicting  
18 testimony on that, and we have heard testimony from a number of people here.  
19 We've heard the experiment that was actually run that the work can be done,  
20 and that the seed tapes are here, and they are being used. The testimony  
21 in El Centro, in fact, was that fifty percent of the acreage in El Centro in  
22 lettuce is done by precision planting now, today, right now. The evidence  
23 has shown that the short-handled hoe was used at one point in time in many  
24 of these other parts of the United States, but has been abandoned.

25 I want to relate to you one small story. With one of the witnesses we  
26 were talking to, you remember the lady Mrs. Ruiz, who couldn't make it down  
27 because her back gave her problems that morning. Her husband was talking to  
28 me, and he said in 1930 when we couldn't find work anywhere, my wife had to

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1 work with the short-handled hoe. The job I had to have was they had these  
2 big burlap bags and we loaded pesticides off of the truck and we put it in  
3 the bags. They weighed a hundred pounds. His problem wasn't managing them,  
4 but taking them out in the rows, and with those bags sprinkling by hand the  
5 fertilizer. It would come up and get in his face and his eyes and so on, but  
6 that's the kind of job he had to do back there. Well, we've developed the  
7 technology so that no longer do we have to have that particular job performed  
8 out in the field. But this other job, which is every bit as insidious, which  
9 is taking the lives, in fact, of farm workers all over the Imperial and Salinas  
10 Valleys, no where else in the country, still exists and it's still a relic of  
11 a barbarous practice that was practiced in the early '30's. We clearly have  
12 the evidence before us that the job can be done in another way, and it can  
13 be done and the industry can do it, and we clearly have before us the  
14 evidence of the crippling injuries that are occurring now, and has occurred  
15 over this period of years. It's taken us three years to put this case  
16 together. So you can see from the effort we've made that we consider it one  
17 of our most important, and we urgently pray before you that you will abolish  
18 this practice once and for all in California. Thank you very much for your  
19 time.

20 MR. WHITE: Thank you, Mr. Glick. Does Mr. Thornton or anyone else have  
21 anything? We've heard more than twenty people here this morning, and we  
22 heard some nineteen down in Imperial near El Centro. We had almost a hearing,  
23 you might say, up in San Francisco because it wasn't a public hearing, but  
24 we certainly heard some competent testimony there. It's clear that a lot of  
25 thought has gone into the presentations. I know I speak for the members of  
26 our force here that we appreciate all the time you took to come with us and  
27 talk about it and to present your point of view. I hope you appreciate it's  
28 not a simple matter. I've been asked several times when do you think we'll

1 make up our minds. And it's not going to be soon. We'll do it as soon as  
2 we possibly can, but there are many other factors involved. It affects an  
3 industry is the way we see it. So it's not just a question of a short hoe,  
4 or an instrument, it's a whole very complex situation. You can be assured  
5 we will give it careful study. We recognize the emotional factors, Mr.  
6 Thornton.

7 MR. THORNTON: I would like to tell you that our physician is not going  
8 to be here. He's going to be in surgery all morning. I trust the record will  
9 be kept open.

10 MR. WHITE: It will and thanks for reminding me. On that point, if  
11 anyone else needs to make his point of view known to us, you all know how to  
12 reach us. Please send us a deposition. The record will remain open.

13 Well, if there's nothing further then, thank you very much for coming.  
14 I declare the meeting adjourned.

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/clc  
5-30-73

# Growers Harvesting Committee

P. O. BOX 745 - MODESTO, CALIFORNIA 95353  
1905 CENTRAL AVE. - CERES, CALIF. 95307  
PHONE (209) 537-3769

April 27, 1973

Mr. Theodore J. Todd, Chairman  
Industrial Welfare Commission  
P.O. Box 603  
San Francisco, California 94101

Dear Mr. Todd,


Unfortunately I will be unable to attend your hearing in Salinas on May 3, 1973 regarding elimination the use of short handled hoes in agriculture but wish to express the feeling of our organization.

In checking around our service area, San Joaquin, Stanislaus and Merced is very little use of short handled hoes for the past 5 or 6 years. Very few if any growers in our area own short handled hoes, however a few contractors still use this type of tool.

Further research indicates that greatest use of this type hoe is used predominantly in the vegetables producing areas of the state and mostly by a few contractors who only do thinning work. The employees of these contractors choose the short handled over the long handled because they prefer piece rate thinning to hourly and then can work faster than with a long handled hoe.

As long as a good clean job is done neither the contractor or grower really cares which hoe the employee uses.

The vegetable industry is the largest of short handled hoes in the state today and this use is being gradually phased out as various precision planters are developed and sold. As an example the tomato industry has excellent precision Planters and Electronic precision Thinners and have not required any hand thinning with short or long handled hoes, for the past 2 or 3 years. The Vegetable industry and sugar beet industry are presently working toward this same goal. The cotton industry never has used short handled hoes and for the past 5 years has been moving toward complete elimination of hand thinning to machine thinning.



The only position we can take is that the employer must have a good job of thinning in his fields and that the employee should have his choice as to the type of hoe he would like to use. We do not feel that the state of California should compel an employee to use a short or long handled hoe any more than they should compel an employee to drive a three or four wheeled tractor or short or long ladder etc.

The experience of the industry in our area indicates that the demand by employees for long handled hoes over the short handled hoes will not be as great as one man thinks and the solution for those employees that want to use the long handled tool, is to make them available upon request.

Thank you for the opportunity to express our views on this matter to you and your fellow commission members.

*Warren F. Wegis*  
Warren F. Wegis  
Secretary-Manager

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April 30, 1973

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Mr. Richard Wilkins  
Chief, Division of Industrial Safety  
455 Golden Gate Avenue  
San Francisco, California 94102

Re: Hearings on May 1 and  
3, 1973 regarding pro-  
posals to abolish use of  
short-handle hoe.

Dear Mr. Wilkins:

We have read with interest, Mr. Maurice Jourdane's Petition to the California Industrial Safety Board, dated September 20, 1972, which seeks to abolish the short-handled hoe as an "unsafe" hand tool.

We do not believe that, by any stretch of the imagination, a short-handled hoe can be called an "unsafe" tool. A search of Industrial Accident Commission records would probably only reveal an occasional cut on the hand, while sharpening the hoe, which can happen in connection with any tool requiring sharpening.

We therefore request the Industrial Safety Board to deny the Petitioner's request.

The main thrust of the Petitioner's argument is to complain about the effect of stooping over to do the job. This effort is required by many tasks in agriculture and probably also in industry. In this instance, the Commission would be decidedly unfair if it were to single out any one operation or tool for regulation. Many operations and tools are involved which require people to bend over, or stoop or assume an uncomfortable position to perform their job. Workers who do not have the physical stamina for such work, have the free choice of seeking other less physical work.

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We believe the question of the short-handled hoe being solely responsible for alleged back problems to be moot.

California sugar beet growers annually plant between 300,000 and 340,000 acres of sugar beets in the Sacramento and San Joaquin Valleys, Imperial Valley and the Coastal Valleys of the state. Their entire crop is harvested mechanically without hand labor.

All hand labor operation in connection with the production of this crop is covered by minimum wages set annually, after public hearing, by the United States Department of Agriculture. In setting these wage rates, various hand operations used in California are described and are as follows by the USDA:

| <u>Hand Labor Operation</u> |  | USDA Minimum<br>Rate<br><u>Per Acre 1/</u> |
|-----------------------------|--|--|
| 1.                          | <u>Blocking and Thinning: Removing weeds and excess beets with a hoe and by hand.</u>            | \$34.50                                    |
| 2.                          | <u>Hoe-Trimming: Removing weeds with a hoe and by hand and excess beets with a hoe only.</u>     | 24.00                                      |
| 3.                          | <u>Hoeing: Removing weeds and excess beets with a hoe only.</u>                                  | 20.00                                      |
| 4.                          | <u>Thinning: Removing excess beets with a hoe only.</u>  | 15.50                                      |
| 5.                          | <u>Weeding: Removing weeds with a hoe and by hand following any one of the above operations.</u> | 13.00                                      |

1/ Rate per acre scales upward or downward depending on row width difference from 20" average width.

Short-handled hoes are used primarily as a first operation in the sugar beet field for Blocking and Thinning, which is an expensive

operation. It is impossible under many circumstances, for a man to do a good job of cleaning the row and spacing out of single sugar beet plants about 6" to 8" apart, without being close to his work. This operation not only requires the use of a short-handled hoe to space out the blocks between plants and clean off the row, but it also frequently requires the use of the man's fingers to "single" the plants and remove any small weeds close to the remaining plant.

Sugar beets need to be evenly spaced out in the row in order to provide room for growth. The small tender seedling plants need to be free from weed competition. As long as there are weeds, and problems in connection with seed germination and weather, it will be necessary that some sugar beet fields be Blocked and Thinned.

Our industry has been involved, for over 20 years, in efforts to eliminate stoop labor from sugar beet fields. Real progress has been made.

In the early 1950's our harvest was completely mechanized, thus eliminating the job of Topping and Loading sugar beets by hand.

Since that time, hundreds of thousands of dollars have been spent to reduce or eliminate the hand labor operations listed above.

Seed breeders have developed monogerm seed which permits a better spacing of plants. New planters have been developed to space-plant this seed. Electronic thinners have been developed to reduce stands.

We are still lacking effective approved herbicides that will permit us to fully mechanize our remaining hand labor operation and eliminate the use of a hoe of any kind. However, we have already come a long way toward eliminating the short-handled hoe.

We have many growers that, under certain moisture, climatic and soil type conditions, are achieving this goal at the present time. However, considering the adversities of nature and weed problems, it will be quite a long while before our industry can expect to eliminate all short-handled hoe work. This is a costly type of



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operation and not done unless necessary. We hope that the Commission will recognize the continued need for farmers to use the best tool available with which to do a job and not go to the extent of regulating the type of tool that should be used.

With respect to our progress toward eliminating or reducing the more arduous work in the Hand Labor Operations previously listed, our surveys indicate the following.

|    | <u>Operation</u>  | <u>% Usage</u> |             |
|----|---|----------------|-------------|
|    |   | <u>1960</u>    | <u>1970</u> |
| 1. | <u>Blocking and Thinning:</u> This operation is done with a short-handled hoe plus singling of beets by hand and removal of weeds next to remaining beets by hand.  | 90%            | 20%         |
| 2. | <u>Hoe-Trimming:</u> This operation is usually done with a long-handled hoe, beets are not singled by hand, but weeds next to remaining beets are removed by hand.  | 10%            | 60%         |
| 3. | <u>Hoeing:</u> This operation is done with a long-handled hoe, beets and weeds are removed with the hoe only - no hand work.  | -              | 10%         |
| 4. | <u>Thinning:</u> This operation would be done with a long-handled hoe to remove excess beets - no handwork. It is seldom used in California because we usually have weeds and use (1) or (2) above.   | -              | -           |
| 5. | <u>Weeding:</u> This is a cleanup operation to remove weeds that grow after one of the above operations has been performed. A long-handled hoe is customarily used except that in a few instances, when doing a second weeding in the late summer, it is easier and more convenient for the worker to use a short-handled hoe to chop off big weeds he cannot pull by hand. | 100%           | 90%         |

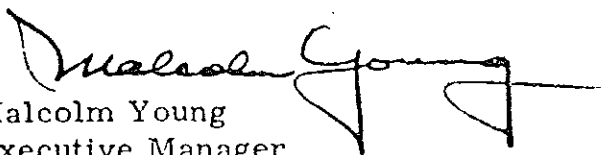
Page Five  
Mr. Richard Wilkins  
April 30, 1973

We hope that the foregoing will help to convince the Board of some facts that are clearly evident to us. These are:

1. The short-handled hoe is only used as a matter of necessity in certain fields and areas of the state where weather, soil type and lack of effective herbicides make it impossible for a sugar beet grower to achieve a proper weed-free stand of sugar beets.
2. The Blocking and Thinning operation, described above and done with a short-handled hoe, is expensive and our industry hopes it can be entirely eliminated soon.

In view of the foregoing, we respectfully request that the Industrial Safety Board give full consideration to the continuing need for the short-handled hoe in sugar beet production and deny the Petition under consideration.

Respectfully submitted,

  
Malcolm Young  
Executive Manager

MY:al

# Lindemann Farms, Inc.

631 Nickel Avenue • LOS BANOS, CALIFORNIA 93635

Telephone: Ranch (209) 826-2442; Sales (209) 826-1076

April 30, 1973

Richard Wilkins  
Division of Industrial Safety  
P.O. Box 603  
San Francisco, Calif 94101

RE: Public Hearing: Short-handled hoes

Dear Mr. Wilkins,

We are distressed to learn of the public hearings for the purpose of considering proposals prohibiting or limiting the use of short-handled hoes by agricultural employees. The short-handled hoe has an integral place in the thinning and weeding of a few limited crops such as lettuce and sugar beets. The future of these type of crops that require use of the short-handled hoe could be severely limited by any restrictions placed upon use of the short-handled hoe.

It is our practice on this ranch to run two separate weeding and thinning crews. One crew, the largest by number, utilizes the long handled hoe and does approximately 80% of the work. The other crew uses the short-handled hoe and does approximately 20% of the work. The employees who use a short-handled hoe do so only by choice and receive an additional 35¢ per hour for this work. These employees prefer working with the short-handled hoe rather than using a long handled hoe. These employees are generally younger, but are composed of both male and female workers. They have more stamina than the other employees, utilize the short-handled hoe only by choice, and appreciate the opportunity to increase their earnings.

# Lindemann Farms, Inc.

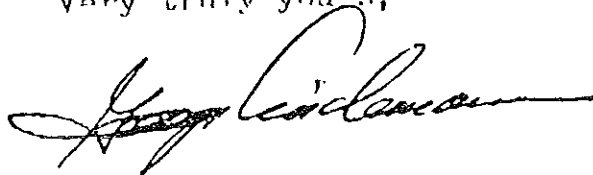
631 Nickel Avenue • LOS BANOS, CALIFORNIA 93635

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We have never had any back injuries on this ranch related to the short-handled hoe.

For these reasons, we respectfully request no changes be made or restrictions applied to the use of the short-handled hoe.

Very truly yours,

A handwritten signature in cursive script, appearing to read "George Lindemann".

George Lindemann

cc/jl

STATEMENT OF  
JOHN RADEBAUGH, M.D.

Member of the National Farmworkers Health Group  
Sanger, California office

By way of introduction, I have worked for eight years with farmworkers, first in the rural areas around Rochester, New York; secondly, in the Imperial Valley, California, and finally in the Fresno County area near Sanger, California. While in the Rochester area, I encountered a number of problems as a physician but few back problems among the farmworkers. Upon arrival in the Imperial Valley, I was impressed by the number of patients who, at a young age, exhibited significant spinal pathology. Many of these workers were in their thirties and forties, and most had given a history of working since early childhood in the farms. Also, the majority of these workers had worked extensively with the short hoe. I would mention again in review, this was not a problem among farmworkers in rural New York State.

The human vertebral column is a complicated bony and ligamentous structure and consists of thirty-two to thirty-five vertebrae; of these, twenty-four are true vertebrae, and eight to eleven are false vertebrae. The true vertebrae consist of separate bones connected by ligaments and joints, while the false vertebrae

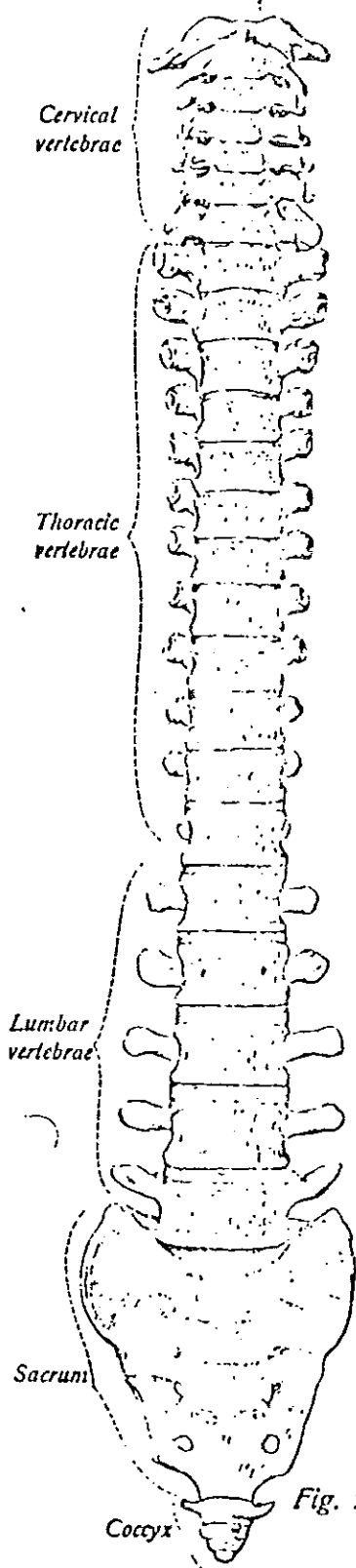


Fig. 21.

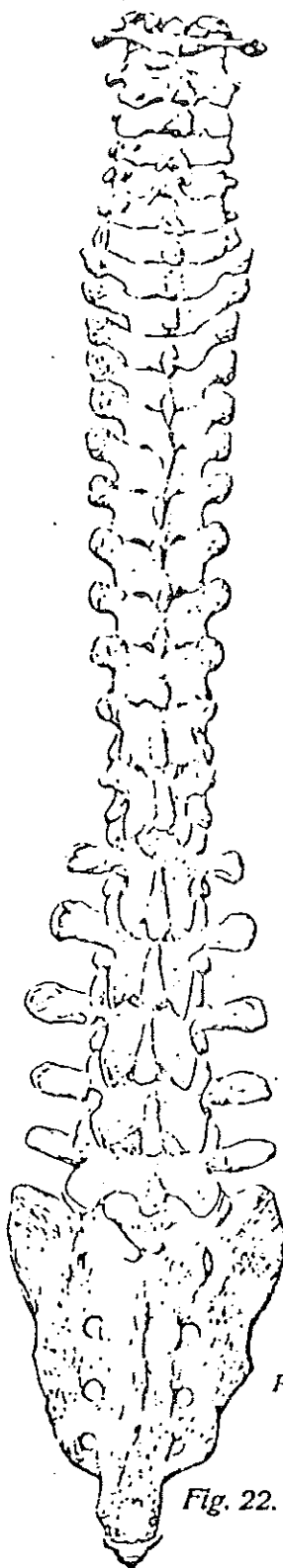


Fig. 22.

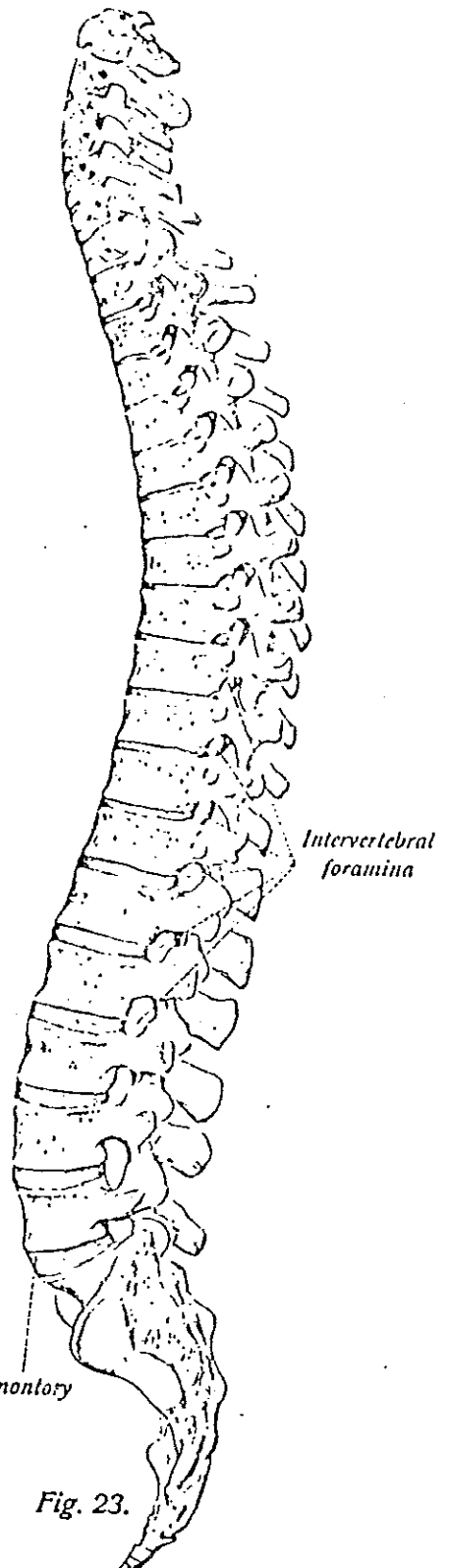
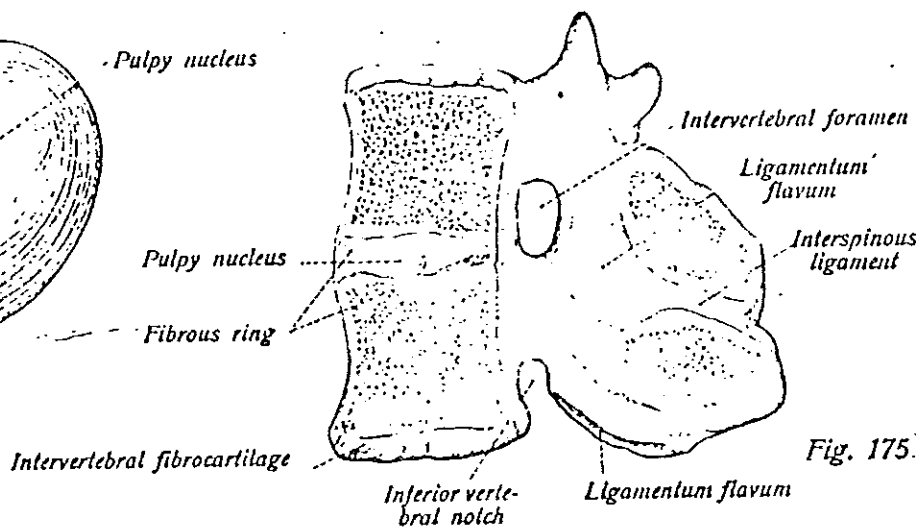
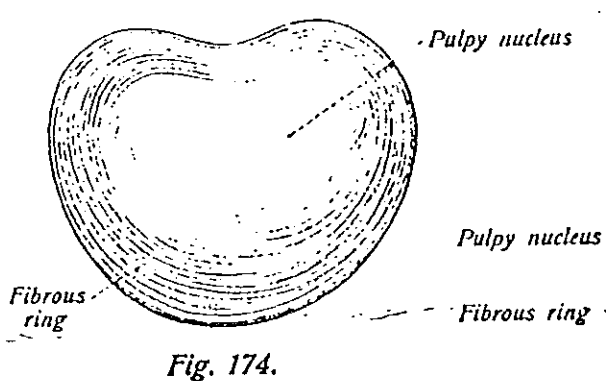
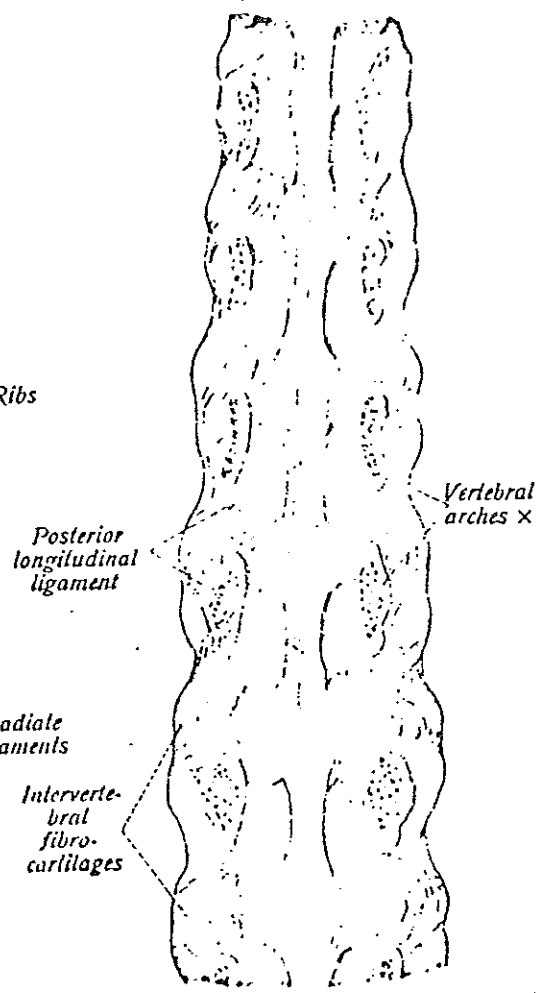
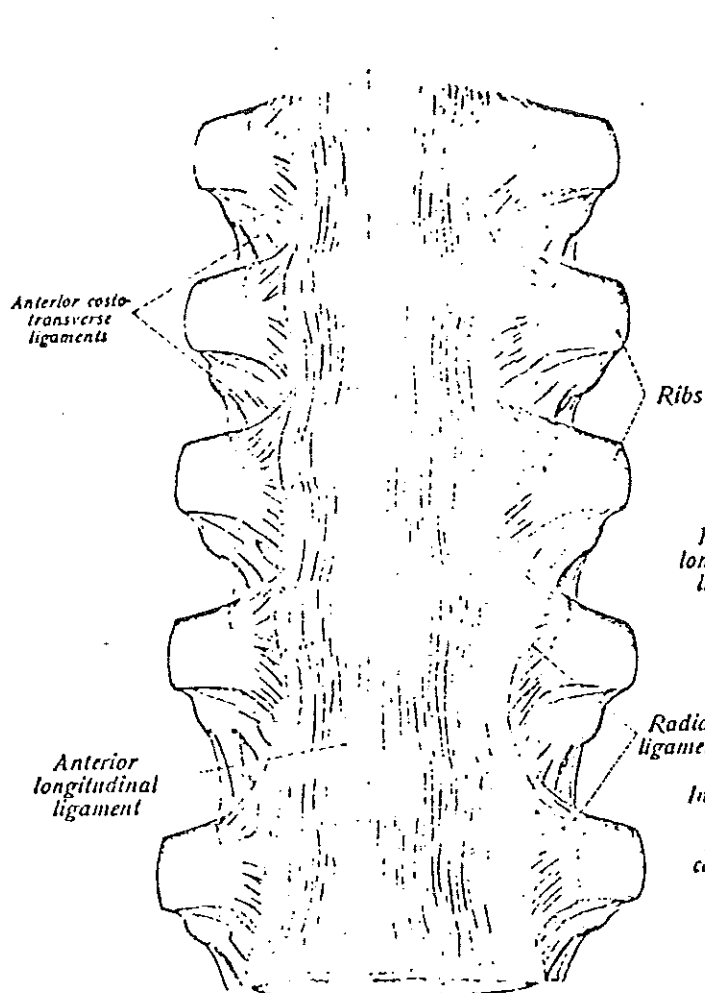


Fig. 23.

are united by bony tissue to form larger bones, as in the sacrum. Each of these vertebra has a spinous process, a transverse process, a body, a pedicle and articular processes. The articular processes connect and form a joint with adjacent vertebrae. The arch and the body form a circular area called the spinal foramen, which protects the spinal cord. Thus, the spinal cord is protected throughout its entirety by a bony tube--a bony and ligamentous tube, which provides extremely effective cushioning against blows or other accidents, and truly is a remarkable protective mechanism. In addition, these vertebrae support a tremendous amount of weight in the body and are designed to support this weight in an erect or a horizontal fashion. There are several normal curves in the spinal column, the cervical portion being convex anteriorly, and the thoracic portion concave anteriorly and the lumbar portion convex anteriorly. Namely, from looking from the side view, the vertebra has a definite "S" pattern. The spinal vertebral column has a definite "S" pattern in the upright position, but this is erased in extreme flexion.

Important structures of the vertebral bodies consist of their articulations or their associations with each other, called intervertebral articulations. These articulations are small areas between one vertebra and another, and allow very little motion, yet the vertebral column as a whole is remarkably flexible because each of the





individual motions is compounded by the vertebra above or below, thus allowing considerable flexibility.

In order to maintain both flexibility and also rigidity to the vertebra so that the tremendous amounts of weight can be supported, there are extensive ligaments attached to all of the vertebra. There is a long and very strong anterior longitudinal ligament and its counterpart posteriorly. There are other intervertebral fibral cartilages. There are costo-transverse ligaments. There is a strong ~~There is a~~ ligament between the vertebral arches called the ligament of flava. In addition, there are interspinous ligaments, and finally, cushioning each vertebra from that above is the intervertebral disc, which consists of a pulpy nucleus, or center, and a fibrous ring about it. This provides a cushioning effect and prevents one vertebra from damaging the one above or below.

With this introduction, one can see the complicated ligaments and structures which support the vertebral column. These structures can withstand considerable strain and do so in the normal human body, yet in certain positions, such as extreme flexion, in which the vertebral column is in a long arch, looking from the side view, the strains, over a long period of time can produce permanent deformities and permanent changes. I have seen patients who, after working in such positions over many years, showing degeneration of portions of the vertebrae as early as 30 years or 35 years, a condition which normally does not occur before 50 or 60 years in the average

population. Let me give you one example only, to illustrate the problem.

Sam Alvidras, of 941 East Clinton Street, in Fresno, California, 93704, is a former farmworker. He is now aged 35. At the age of ten, eleven, twelve, thirteen, and fourteen years, he traveled with his family in the Tulare-San Jose-Salinas-and Walnut Creek areas. He recalls that while working for six and one-half days per week at approximately thirty-five to forty dollars a week, eight hours a day with fifteen minutes for lunch, that at the end of such a day when working with the short hoe in lettuce or a similar instrument in asparagus, that he could not straighten up at the end of the day. He had to walk in a stooped position. At the end of a 3/4-hour bus ride to his home, he still was unable to straighten up completely. He recalls that the rest of his family was in a similar situation. He did this work only for five years--five years during which he was developing as a body, had not obtained full vertebral growth at that time. He also has a brother who worked at the same ages, and at the same time with him. His brother still has difficulty in maintaining the erect position and acts like a person who has had low back lumbar arthritis. Mr. Alvidras himself still has back trouble and rheumatic pains in his lower back, in spite of the fact that he has not done such work since the age of 15.

In addition, he has performed no other work of either a heavy nature, or farmwork since that period of time, and yet still has these complaints.

The prolonged strain in this unnatural attitude for the spine provides, especially for young people, a separation of the cartilages at a time when cartilages in the vertebrae are still in a developing stage. For older workers, the strain over a long period of time produces stretching of the normal ligaments, instability of the back, and finally, erosion of cartilages and bone, factors which are permanent and which may occur at a young age.

How can this be prevented? By allowing work to be done in a more erect position as much as possible. Obviously, some types of work have to be done in a stopped position. Certain picking operations, for example. Yet the hoe, or thinning instruments, can be made lighter, and can have longer handles, and still be effectively used. This is a simple request and a simple preventive measure. Yet it is one that is accomplished in the East, and certainly should be possible in California and Arizona. I would like to illustrate this with a short hoe and a similar instrument, which could replace the short hoe as being adaptable and flexible in use in the fields. (Please see Exhibit No. 1)

As a physician with considerable experience with farmworkers, I summarize again the observation that workers in California with whom I have had experience

show considerably more back problems than those I noted in the east. I believe that this is directly related to the prevalent usage of the short hoe in California agriculture.

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JOHN RADEBAUGH